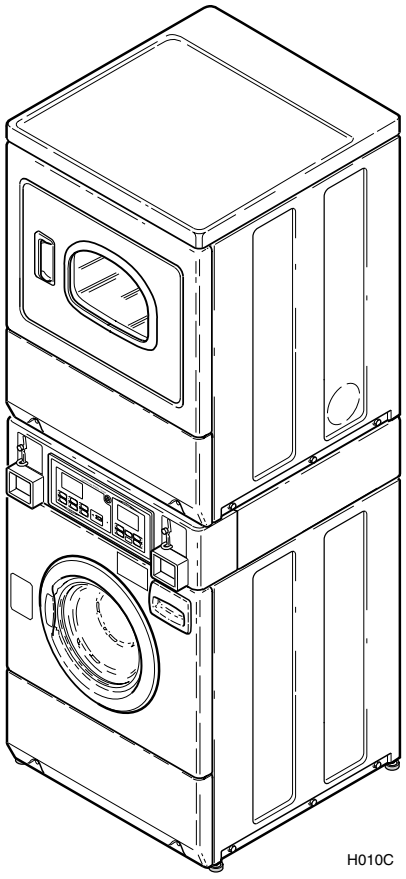
Commercial Stacked Washer/Dryer

Refer to Page 8 for Model Numbers

Service



H010C

Alliance Laundry Systems

www.comlaundry.com

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Section 1
Safety Information

Throughout this manual and on machine decals, you will find precautionary statements ("CAUTION," "WARNING" and "DANGER") followed by specific instructions. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

⚠ DANGER

Danger indicates an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.

⚠ WARNING

Warning indicates a hazardous situation that, if not avoided, could cause severe personal injury or death.

⚠ CAUTION

Caution indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.

Additional precautionary statements ("IMPORTANT" and "NOTE") are followed by specific instructions.

IMPORTANT

The word "IMPORTANT" is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE

The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

In the interest of safety, some general precautions relating to the operation of this machine follow.

WARNING

- **Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce serious injury, death and/or property damage.**
- **Do not repair or replace any part of the machine or attempt any servicing unless specifically recommended or published in this Service Manual and that you understand and have the skills to carry out.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the machine is properly grounded and to reduce the risk of fire, electric shock, serious injury, or death.**

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

WARNING

Repairs that are made to your products by unqualified persons can result in hazards due to improper assembly or adjustments subjecting you or the inexperienced person making such repairs to the risk of serious injury, electrical shock or death.

W007

WARNING

If you or an unqualified person perform service on your machine, you must assume the responsibility for any personal injury or property damage which may result. The manufacturer will not be responsible for any injury or property damage arising from improper service and/or service procedures.

W286

NOTE: The WARNINGS and IMPORTANT INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining or operating the machine.

Always contact your dealer, distributor, service agent or the manufacturer about any problems or conditions you do not understand.

Locating an Authorized Servicer

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Alliance Laundry Systems also recommends contacting an authorized technician and using authorized factory parts.

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Section 2
Introduction

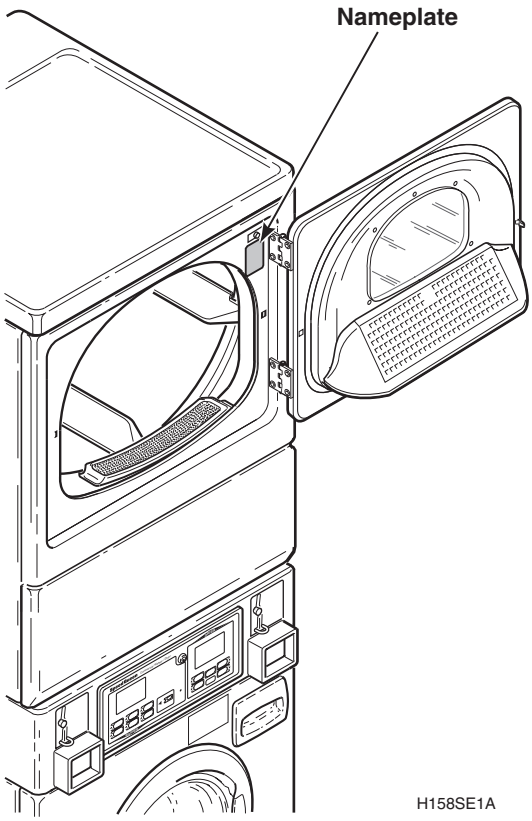
Customer Service

If literature or replacement parts are required, contact the source from whom the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

For technical assistance, call (920) 748-3121.

Nameplate Location

When calling or writing about your machine, be sure to mention model and serial numbers. Model and serial numbers are located on nameplate(s) as shown.



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Model Identification

Information in this manual is applicable to these models.

Model Number	Coin Drop Installed	Coin Drop Ready	Card Reader Installed	Card Reader Ready	Electronic Control	Timer	Heat
HTE517*E2802	X				X		Electric
HTE517*H2802	X				X		Electric
HTEB17*J2802	X				X		Electric
HTEF17*J2802			X		X		Electric
HTET17*H	X				X		Electric
HTET17*H2802	X				X		Electric
HTEX17*H2902		X			X		Electric
HTEY17*H				X	X		Electric
HTEY17*H2802				X	X		Electric
HTEZ17*H	X				X		Electric
HTEZ17*H2802	X				X		Electric
HTG519*E0902	X				X		Gas
HTG519*H0902	X				X		Gas
HTGB19*J0902	X				X		Gas
HTGF19*J0902			X		X		Gas
HTGT19*H	X				X		Gas
HTGT19*H0902	X				X		Gas
HTGX19*H0902		X			X		Gas
HTGY19*H				X	X		Gas
HTGY19*H0902				X	X		Gas
HTGZ19*H	X				X		Gas
HTGZ19*H0902	X				X		Gas
LTS87A*H						X	Electric
LTS89A*H						X	Gas
LTU87A*H						X	Electric
LTU89A*H						X	Gas
LTZ87A*H						X	Electric
LTZ87A*H2802						X	Electric
LTZ89A*H						X	Gas
LTZ89A*H0902						X	Gas
STE717*E			X		X		Electric
STEA17*H		X			X		Electric
STEA17*J		X			X		Electric
STEB17*H	X				X		Electric
STEB17*J	X				X		Electric
STEC17*J				X	X		Electric
STED17*H			X		X		Electric
STEF17*J			X		X		Electric
STET17*H	X				X		Electric

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Model Number	Coin Drop Installed	Coin Drop Ready	Card Reader Installed	Card Reader Ready	Electronic Control	Timer	Heat
STEY17*H				X	X		Electric
STEZ17*H	X				X		Electric
STG519*E	X				X		Gas
STGA19*H		X			X		Gas
STGA19*J		X			X		Gas
STGB19*H	X				X		Gas
STGB19*J	X				X		Gas
STGC19*J				X	X		Gas
STGD19*H			X		X		Gas
STGF19*J			X		X		Gas
STGT19*H	X				X		Gas
STGY19*H				X	X		Gas
STGZ19*H	X				X		Gas

*** Add Letter To Designate Color. L – Almond W – White Q – Bisque**

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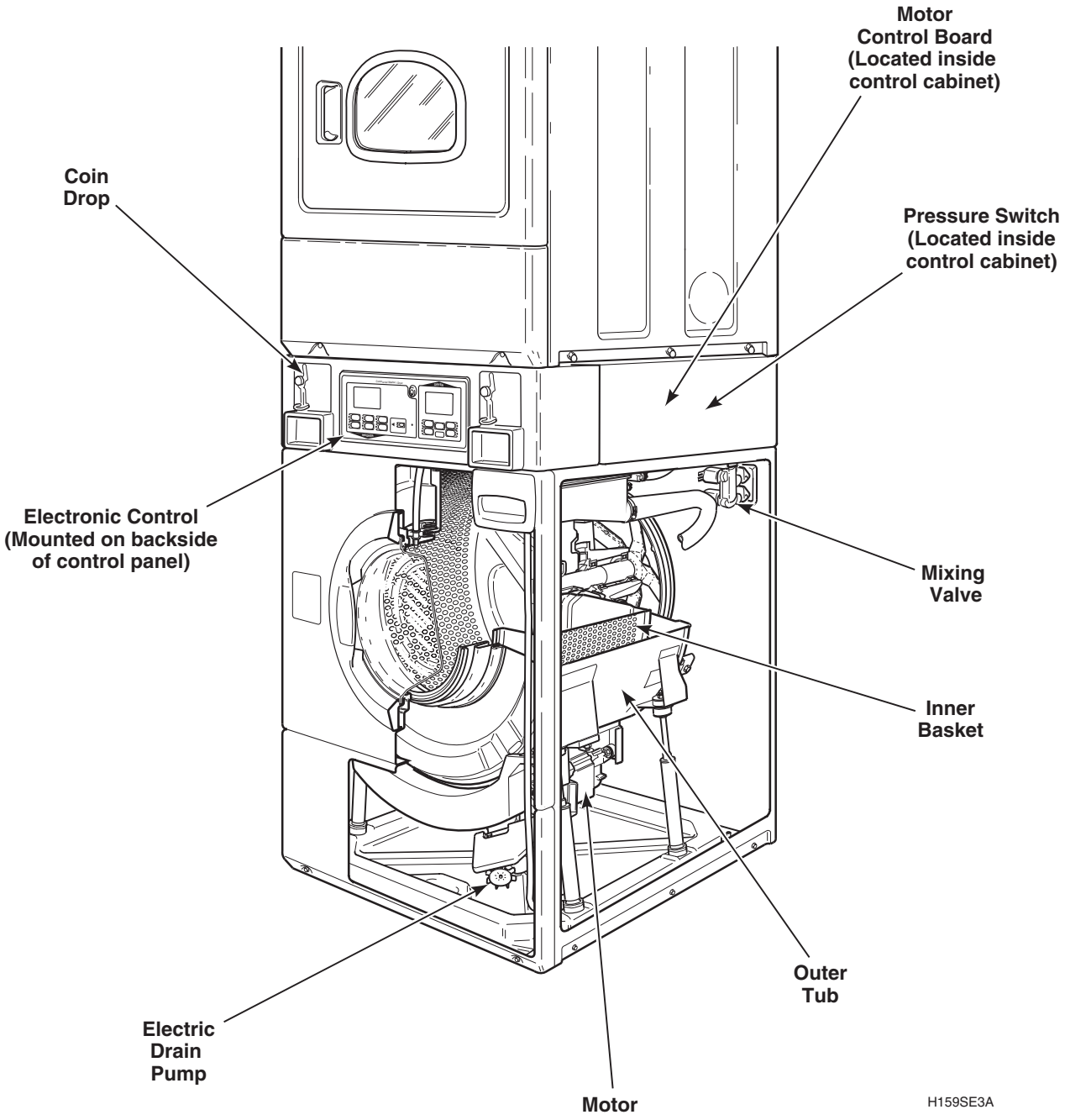
How Your Washer Works



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General

This frontload washer provides some of the same principles of operation as the typical topload washers. It senses water level, it dispenses the desired laundry detergent, agitates the clothes for good cleaning action, pumps the water out of the washer and spins the clothing in preparation for the dryer.

The difference in operation is primarily the rotational washing agitation created for the horizontal basket and drum. This agitation tumbles the clothes in a clockwise, pause, and counter-clockwise direction. This reversing tumbling action provides an efficient washing process and requires less laundry detergent and less water.

The cycle begins by locking the loading door after the vend is satisfied. The type of cycle and water temperature are determined by the appropriate pads on the Electronic control.

The inner basket starts agitating during the wash water fill. A column of air is trapped in a pressure bulb and hose. The air pressure continues to increase as the inner basket fills with water until it is great enough to activate the pressure switch which then causes the wash fill to stop.

The agitate cycle tumbles the clothing in a clockwise direction for a period of 20 seconds, pauses for nine seconds and then tumbles the clothing in a counterclockwise direction for 10 seconds. This agitation continues until the wash soak cycle. The machine stops agitating and turns on the pump which removes the wash water.

Upon completion of the wash cycle, the machine goes into a rinse cycle. Fresh cold water is brought into the inner basket via the mixing valve until the pressure switch shuts off the water while agitating. The rinse cycle consists of agitation for a predetermined amount of time then a spin mode with the pump running where the machine goes into a series of 4 short 500 RPM spins. Two of these rinse cycles will normally take place with a third extra rinse cycle being optional.

After all the rinse cycles have been completed, the washer goes into a final high spin cycle to extract as much water as possible from the clothing to prepare them for the dryer. The spin speeds and duration of this final high spin cycle are determined by the type of wash cycle selected (see table).

NOTE: Washer may not reach 1000 RPM because of an out-of-balance condition. Control may limit speed to 850, 650 or 500 RPM depending on severity of out-of-balance condition.

	Regular	Perm Press	Delicate
650 RPM	5-1/2 minutes	6 minutes	4 minutes
1000 RPM	1-1/2 minutes	1 minute	0 minutes

Technical

The basic operational system of this washer consists of the electronic front-end control, the motor control, pressure switch, water valves, electric pump, D.C. motor and transformer.

The front end control performs all control and timing functions like the timer in a top load washer. The front end control sends simple speed and output commands to the motor control via serial communication. The front end control powers the door lock, pump and the motor control.

The motor control powers the D.C. motor and performs all motor control functions. The motor control also powers the water and dispenser valves and passes the pressure switch status to the front end control. The motor control is powered through the door switch, door lock switch and front end control. An auto transformer provides 240 VAC for the motor which the motor control converts to D.C. The motor control also alerts the front end control to any errors in the motor.

The motor control uses a speed sensor on the motor to measure the drum RPM. Before entering any spin step the motor control measures the RPM of the drum to sense out-of-balance. The motor control will try to redistribute the clothes if an out-of-balance condition exists the motor control will limit the spin speed to several speeds depending on the severity of the out-of-balance condition. If the out-of-balance condition is severe enough the motor control will limit speed to 90 RPM and will not spin.

NOTE: An additional out-of-balance switch is used to detect any out-of-balance condition during spins. If this switch opens during a spin step the motor control immediately stops the spin step and restarts the spin step.

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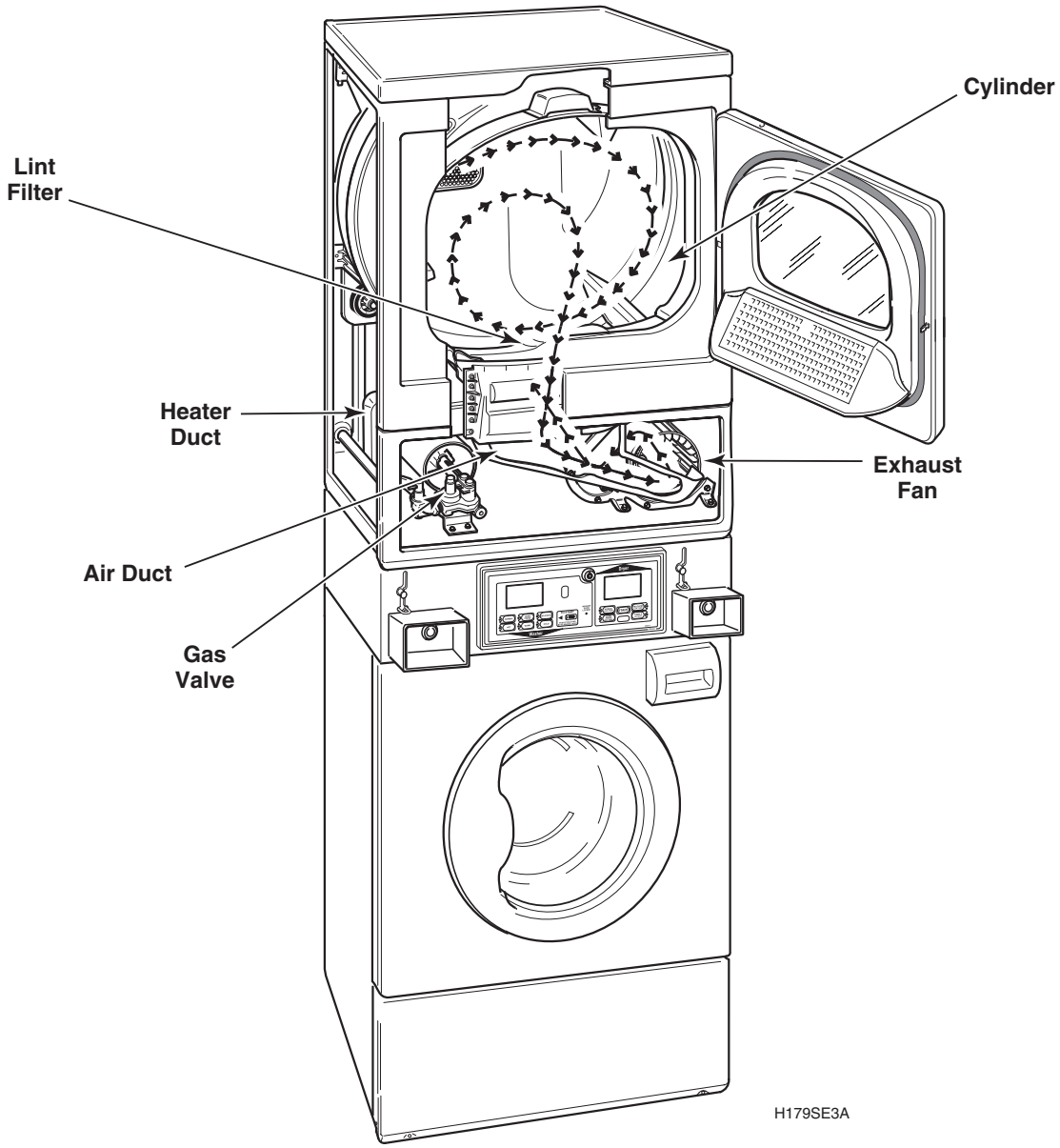
How Your Dryer Works



The dryer uses heated air to dry loads of laundry. When the motor is started, the exhaust fan pulls fresh air in through louvers at the rear of the dryer and over the heat source (burner flame for gas and heating element for electric). The heated air moves through the heater duct and into the cylinder, where it circulates through the wet load. The air then passes through the lint filter, air duct and exhaust fan, where it is vented to the outdoors.

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Section 3
Troubleshooting

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

1. TROUBLESHOOTING COIN DROP

When coin is placed into coin slot, the coin should roll down drop and be heard dropping into coin vault. If coin does not fall into coin vault or if coin drop sensor does not register that coin has been entered, follow troubleshooting instructions on following page. Refer to *Figure 1* for path that coin follows when working properly.

IMPORTANT: Never use oil to correct coin drop problems. Oil residue will prevent coins from rolling properly.

IMPORTANT: Do not bend or damage mechanical parts within coin drop.

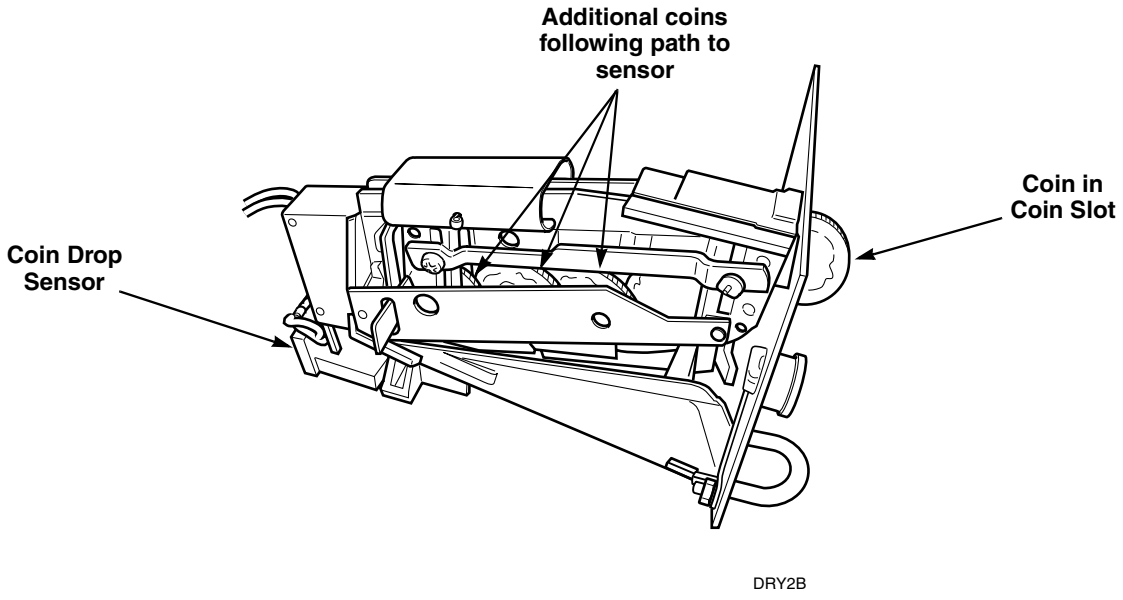

Figure 1

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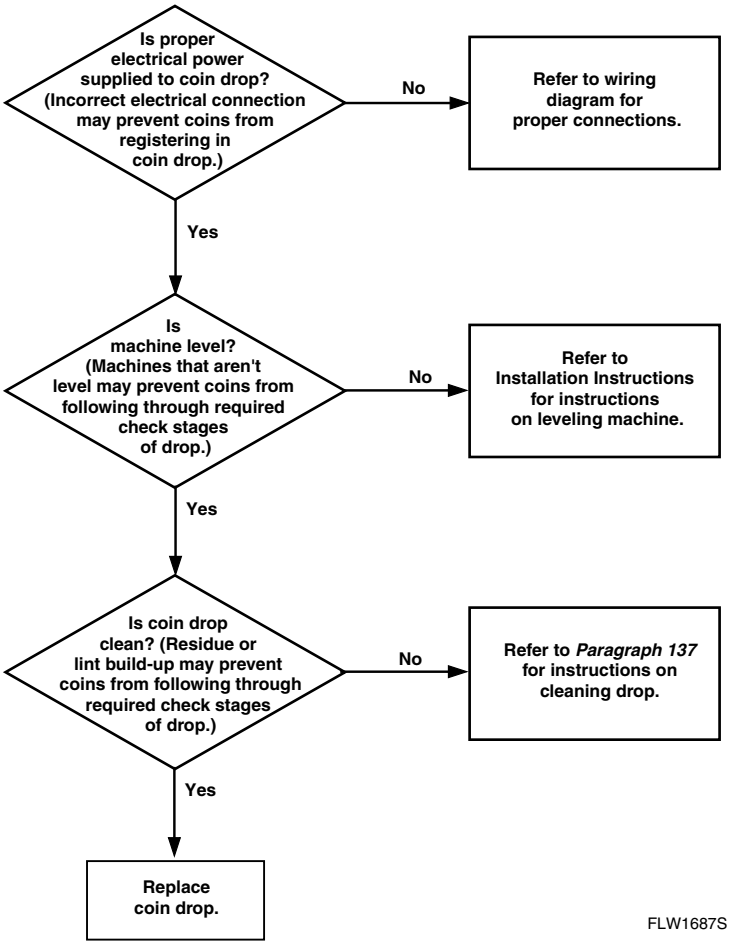
Is proper electrical power supplied to coin drop? (Incorrect electrical connection may prevent coins from registering in coin drop.)
No
Refer to wiring diagram for proper connections.
Yes
Is machine level? (Machines that aren't level may prevent coins from following through required check stages of drop.)
No
Refer to Installation Instructions for instructions on leveling machine.
Yes
Is coin drop clean? (Residue or lint build-up may prevent coins from following through required check stages of drop.)
No
Refer to *Paragraph 137* for instructions on cleaning drop.
Yes
Replace coin drop.
FLW1687S

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Troubleshooting

Washer

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

2. NO SPIN CONDITION – MODELS THROUGH SERIAL NO. 9811005968

A "no spin" condition could be the result of an open circuit in the wire harness or out-of-balance switch.

a. Check that the harness is still connected to the out-of-balance switch. The wiring diagram may show the out-of-balance switch as a normally open switch which is incorrect. The switch is a normally closed switch.
b. To test the electrical circuit, disconnect electrical power to the washer.
c. Remove the "H3" connector from the motor control board.
d. Use an Ohm meter and check the black/white to violet/white wires. Circuit should read closed, an open reading indicates a bad switch or wire harness problem.
e. Flex the harness at the plastic retainer and test the switch and if okay, the base wire harness has an open circuit and MUST be replaced.
f. After replacing the wire harness, tape the harness wires to the left front shock 1 ½ inches from top of shock. Refer to *Figure 2*.

IMPORTANT: Leave a minimum of 8 inches of slack between tape on shock and the plastic wire retainer on the out-of-balance switch mounting bracket. Refer to *Figure 2*.

3. TROUBLESHOOTING KNOCKING NOISE

If a frontload washer produces a noise similar to a knock on a door, it might be due to a flat spot on the belt. The knocking sound is made when the flat spot hits the pulley. The knocking may occur during a pulse spin and fade after reaching a higher RPM.

To correct this condition, replace the washer belt. Refer to *Paragraph 94*.

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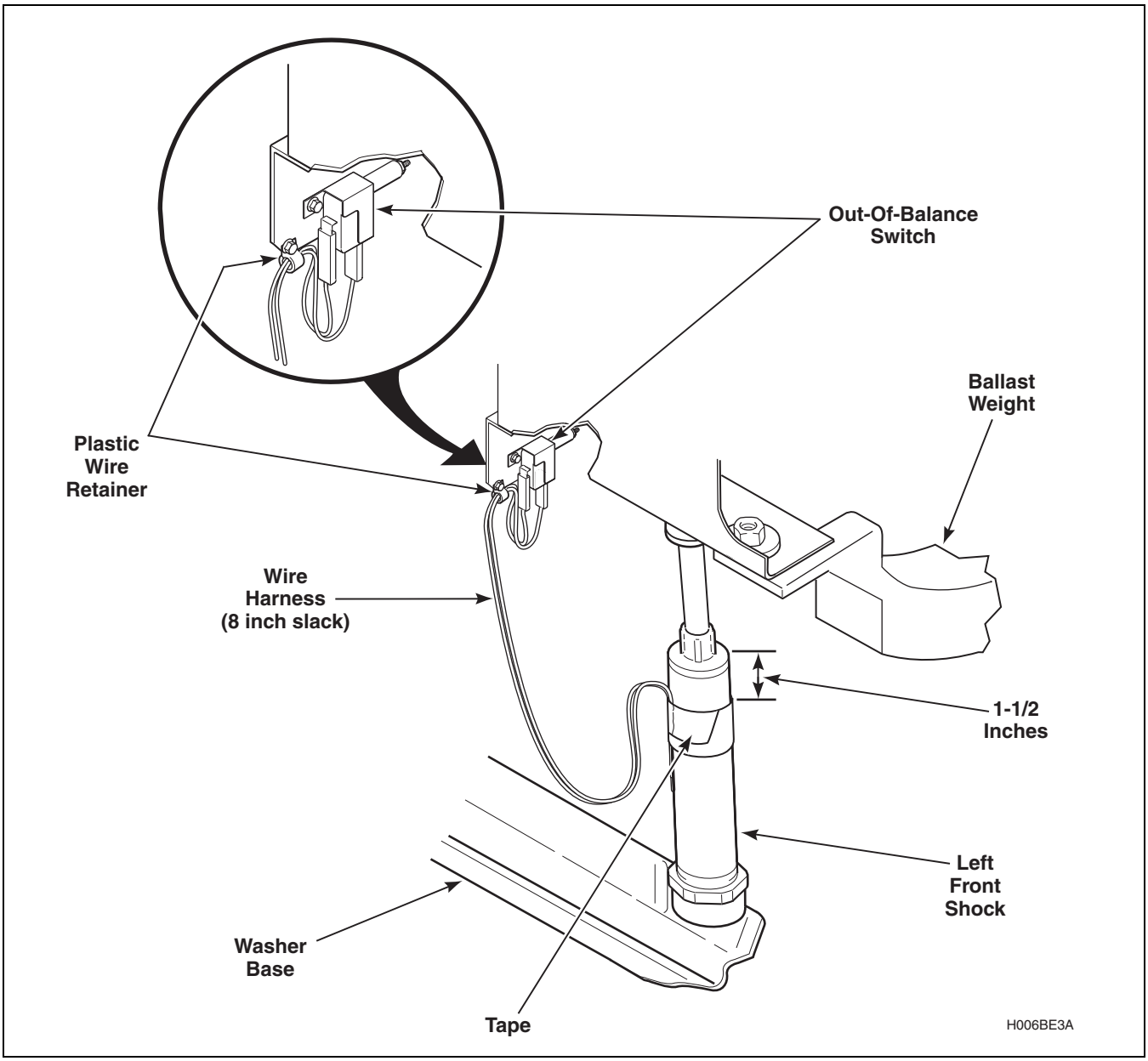

Figure 2

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

4. NO MOTOR ROTATION, OR DRIVE FAILURE CODE "E:DF" ON ELECTRONIC DISPLAY UNITS

NOTE: Verify that motor is receiving proper voltage. Disconnect electrical power to washer.

TEST PROCEDURE

a. At the rear of the washer, remove the lower access panel.
b. Reach in through the access panel opening and disconnect motor wire harness from motor.
c. Using an Ohmmeter, measure resistance at the terminals on the motor. Refer to *Table 1*.

Motor Resistance Values		
TACH INPUT	Terminals 6-7	Approximately 15 Ohms
BRUSHES	Terminals 4-5	Less than 70 Ohms
WINDING	Terminals 1-3	Approximately 1.1 Ohms
WINDING	Terminals 1-2	Approximately 2.0-2.4 Ohms
WINDING	Terminals 2-3	Approximately 3.4 Ohms
NOTE: Resistance values may vary depending on type of Ohmmeter used.		

Table 1

d. Replace motor if there is an open circuit on tach input (terminals 6-7) or winding circuits (terminals 1, 2 and 3), or if there is continuity between any terminal and the motor housing.
e. An open circuit between terminals 4 and 5 indicates a stuck or worn brush. Refer to appropriate service procedure below.

SERVICE PROCEDURE: STUCK BRUSHES

a. Remove motor from washer. Refer to *Paragraph 100*.
b. Using a flashlight, view brushes through holes in motor end shield. Refer to *Figure 3*.
c. Inspect both brushes to determine if either brush braided wire is binding the brush movement. The braided wire might be snagged on the seam in the corner of the metal brush holder. Refer to *Figure 3*.

NOTE: The copper braided wire should be located in the center of the brush assembly. If the braided wire has fallen to the bottom of the brush, it will cause binding.

d. After determining which brush assembly is binding, carefully use the tip of a small screwdriver to unsnag and reposition the braided wire. Refer to *Figure 4*. Make sure spring is making unobstructed contact with the end of the brush. Rotate armature by hand to assure that brushes are seated.
e. Recheck resistance between motor terminals 4 and 5 to verify the brush position has been corrected.
f. Reinstall motor in washer.
g. Run washer through cycle to verify proper operation.

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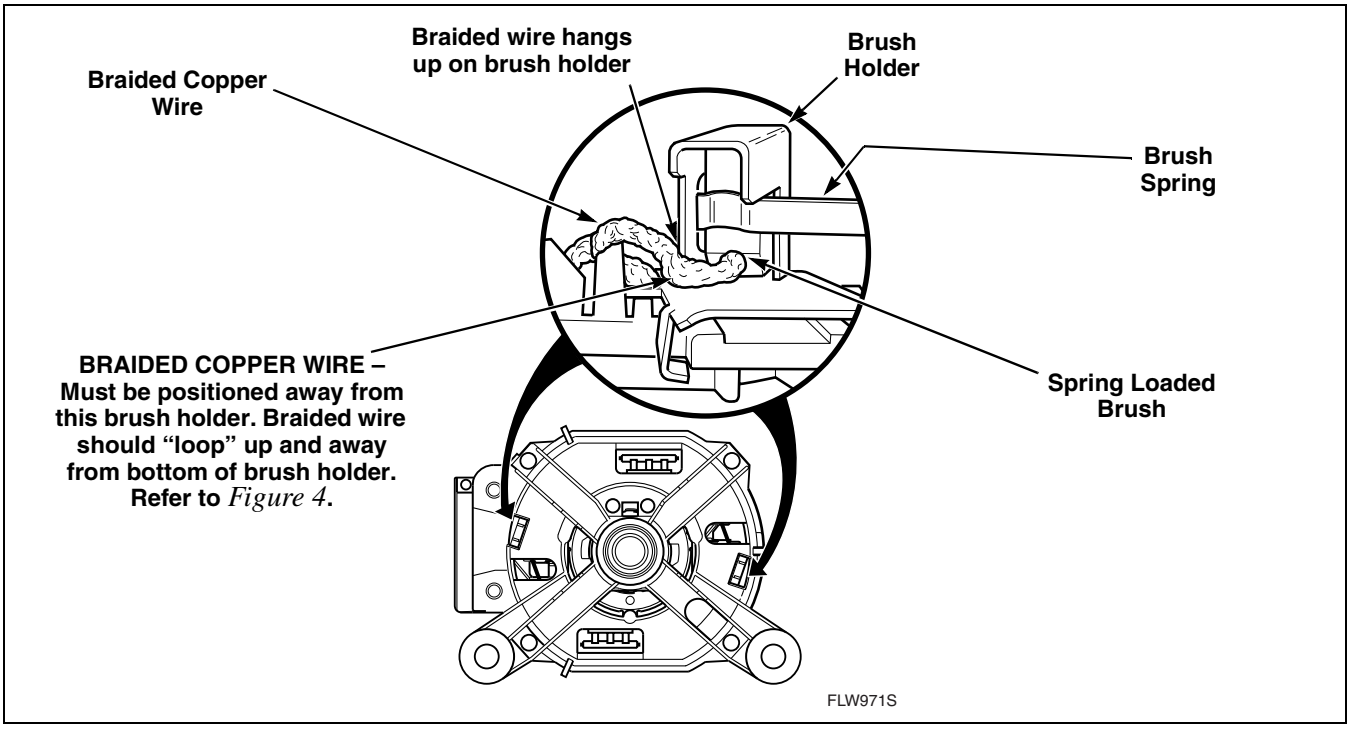
Braided wire hangs up on brush holder
Brush Holder
Braided Copper Wire
Brush Spring
BRAIDED COPPER WIRE – Must be positioned away from this brush holder. Braided wire should "loop" up and away from bottom of brush holder. Refer to *Figure 4*.
Spring Loaded Brush
FLW971S

Figure 3

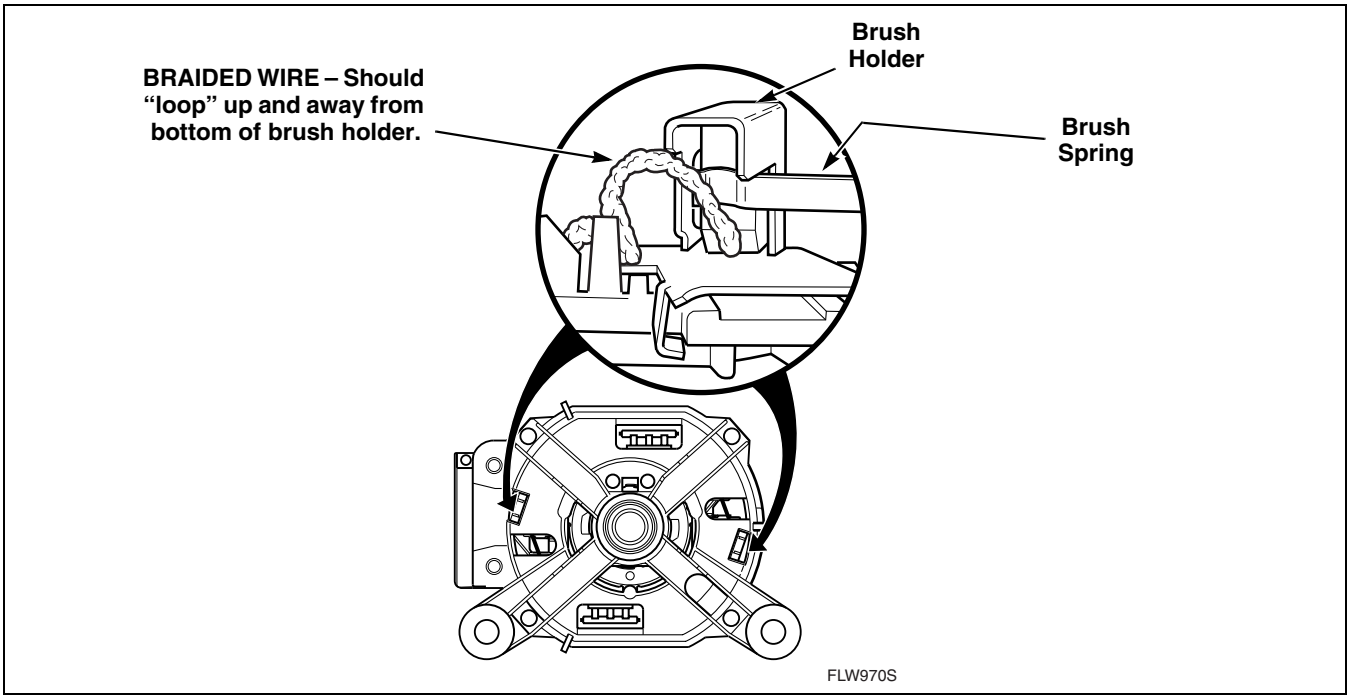

Figure 4

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

SERVICE PROCEDURE: WORN BRUSHES

a. Remove motor from washer. Refer to *Paragraph 100*.

b. Using a flashlight, view brushes through holes in motor end shield. Refer to *Figure 5*.

c. Inspect both brushes to determine if either brush is worn. Refer to *Figures 5* and *6*.

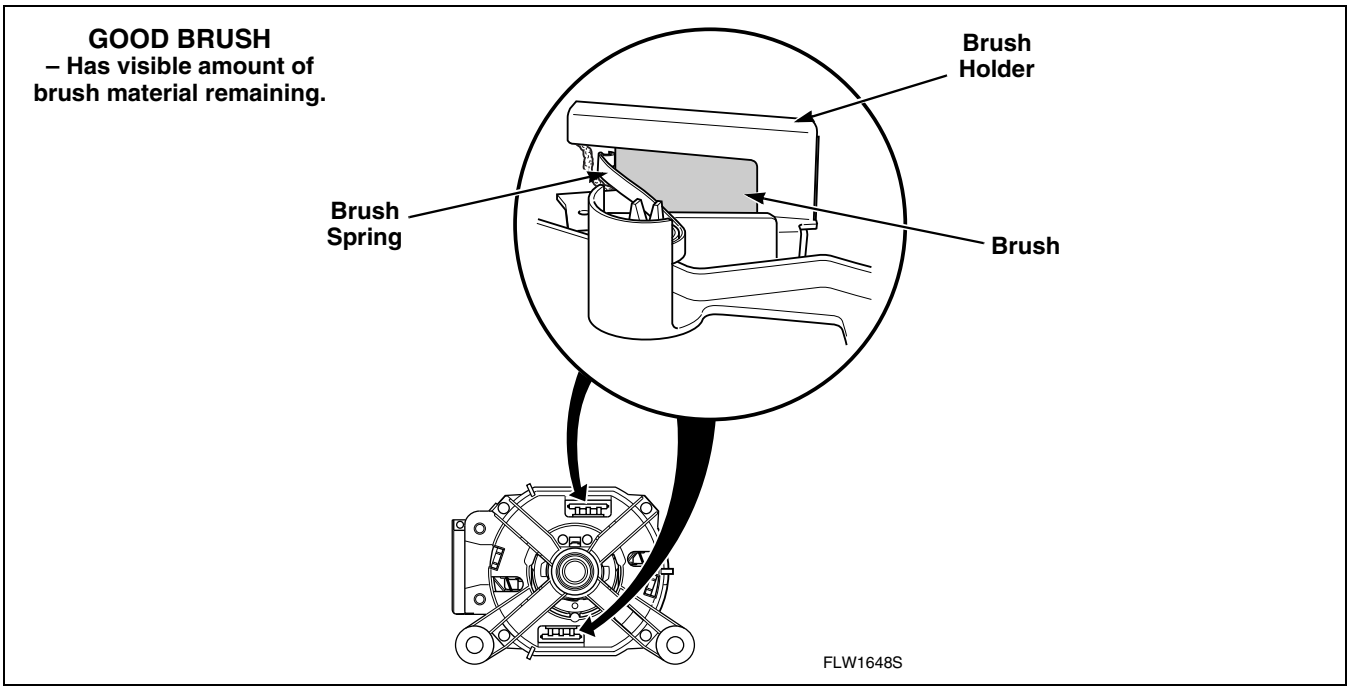

Figure 5

d. Replace worn brushes with 738P3 Motor Brush Kit. Follow instructions provided in kit.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

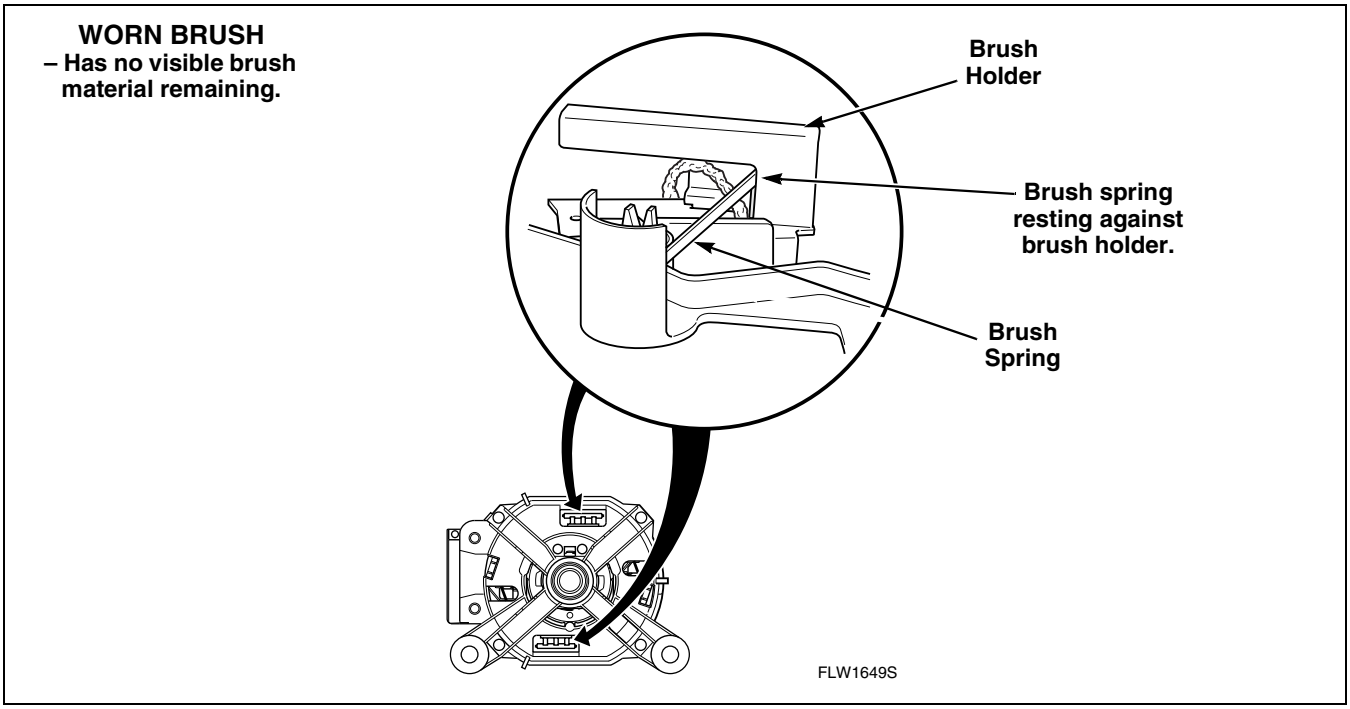

Figure 6

SERVICE PROCEDURE: CLOGGED BRUSHES

a. Remove motor from washer. Refer to *Paragraph 100*.
b. Using a flashlight, view brushes through holes in motor end shield. Refer to *Figure 5*.
c. Inspect both brushes to determine if they are clogged due to a build-up of carbon dust.
d. If there is a visible amount of brush left, use a screwdriver or similar device to push brush back and forth to loosen and remove dust. Refer to *Figure 5*.

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Troubleshooting

EDC Models – Washer Control

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

5. EDC ERROR CODE LISTING

a. **E:df – Drive failure.** This error code is generated by the motor control and transmitted to the master control. Several conditions can cause this code; motor unplugged, motor failure (brushes worn out, etc.), tachometer circuit open, inner basket locked up. This is a fatal error, machine must be unpowered to reset.

b. **E:SP – Serial communication error.** This error occurs when the master control cannot communicate with the motor control. The master control will try to reset the motor control by powering it down. It will try resetting three times before setting the error code. Common causes: transformer unplugged or defective, wiring to motor control incorrect. This is a fatal error.

c. **E:FL – Fill error.** This error occurs if the pressure switch fails to open in 30 minutes in any fill/agitate cycle. This is a fatal error.

d. **dor – Door Open Indicator.** This error occurs when the door is not closed at the start of an active cycle. If the door is closed, check for wiring or door switches.

e. **E:do – Door open error.** This error occurs if the control detects the door open and door locked inputs high at the same time. You can get this error if you jerk on the door when it is locked or as it is about to lock. This is a fatal error.

f. **E:dL – Door lock error.** This error occurs if the door does not lock in 15 seconds or unlock in 3 minutes at the end of the cycle. This is a non-fatal error. If the door locks or unlocks while E:dL is displayed it will clear the error condition. Also if the door is opened after failing to lock it will clear the display.

NOTE: If replacing an inoperative electronic control due to burnt pin(s) on the 6-pin wire harness connector block, it may be due to damaged terminals in the harness connector. Damaged terminals in the harness connector will appear burnt or show signs of heat discoloration on the connector block. Replace the control wire harness with the control to avoid repeated damage.

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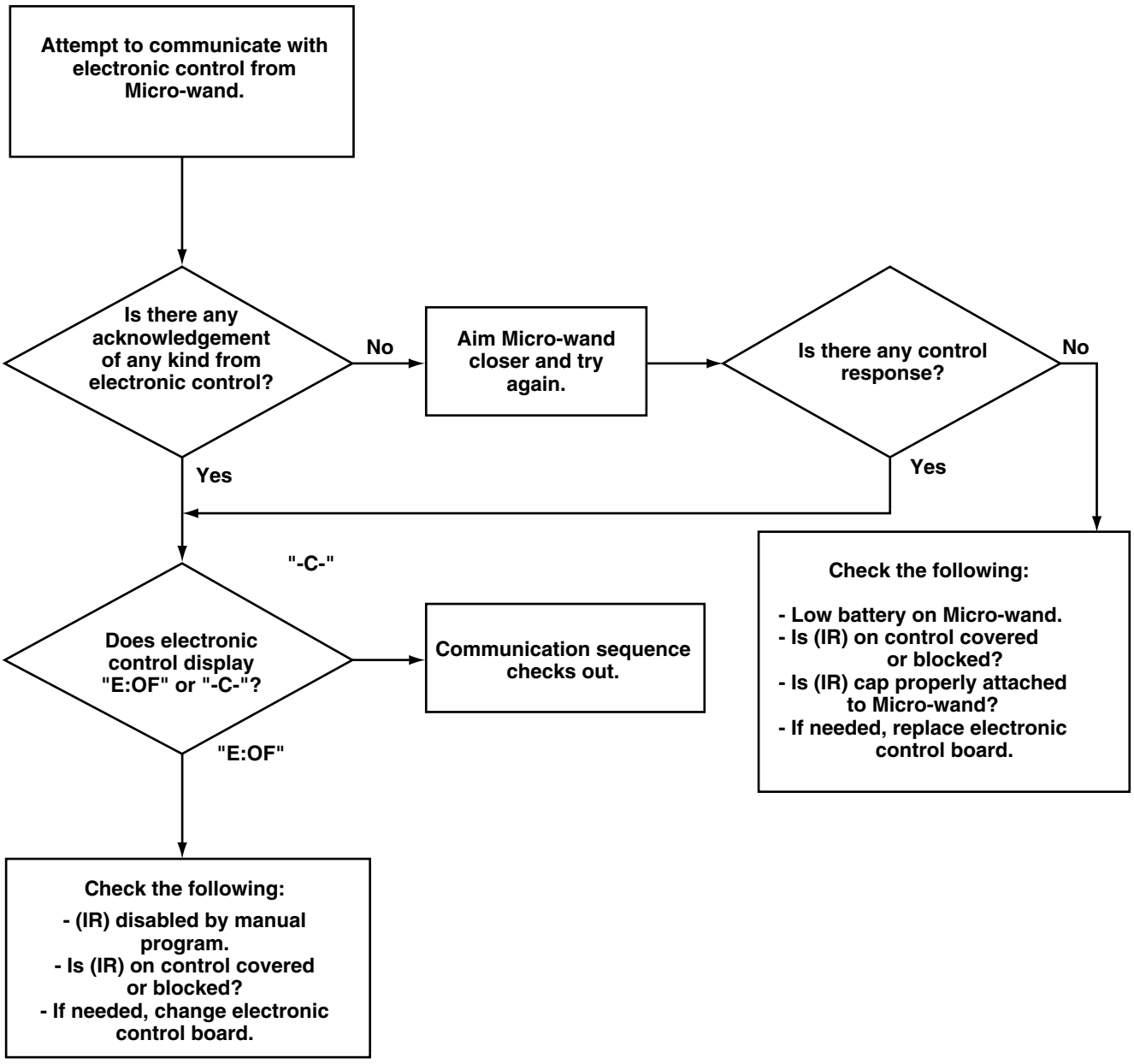
6. CANNOT PERFORM INFRARED COMMUNICATION


Attempt to communicate with electronic control from Micro-wand.
Is there any acknowledgement of any kind from electronic control?
No
Aim Micro-wand closer and try again.
Is there any control response?
No
Yes
Yes
"-C-"
Does electronic control display "E:OF" or "-C-"?
Communication sequence checks out.
"E:OF"
Check the following:
- Low battery on Micro-wand.
- Is (IR) on control covered or blocked?
- Is (IR) cap properly attached to Micro-wand?
- If needed, replace electronic control board.
Check the following:
- (IR) disabled by manual program.
- Is (IR) on control covered or blocked?
- If needed, change electronic control board.

H130S

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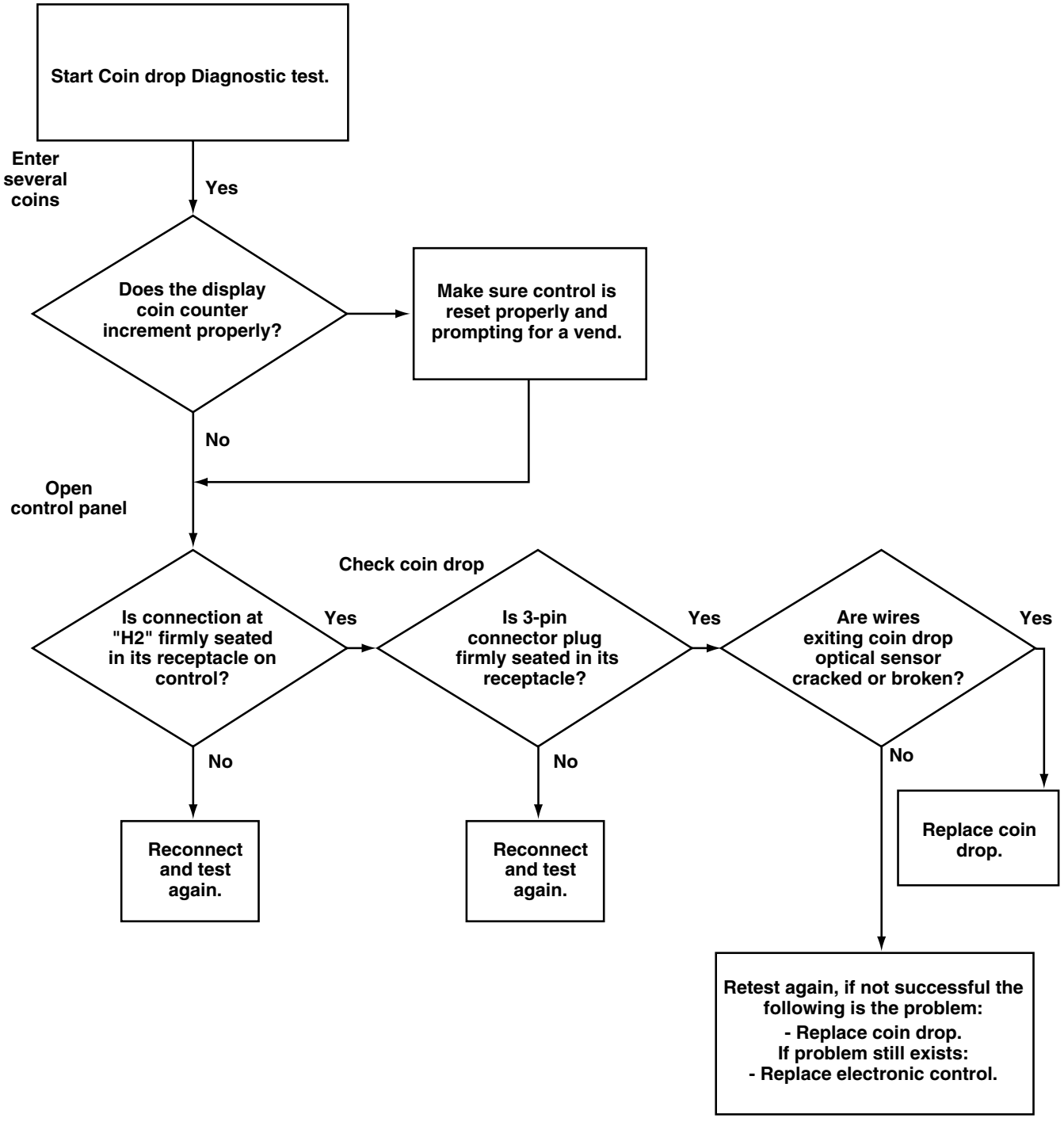
7. COINS IGNORED WHEN ENTERED


Start Coin drop Diagnostic test.
Enter several coins
Yes
Does the display coin counter increment properly?
Make sure control is reset properly and prompting for a vend.
No
Open control panel
Check coin drop
Is connection at "H2" firmly seated in its receptacle on control?
Yes
Is 3-pin connector plug firmly seated in its receptacle?
Yes
Are wires exiting coin drop optical sensor cracked or broken?
Yes
No
No
No
Reconnect and test again.
Reconnect and test again.
Replace coin drop.
Retest again, if not successful the following is the problem:
- Replace coin drop.
If problem still exists:
- Replace electronic control.
H131SE3A

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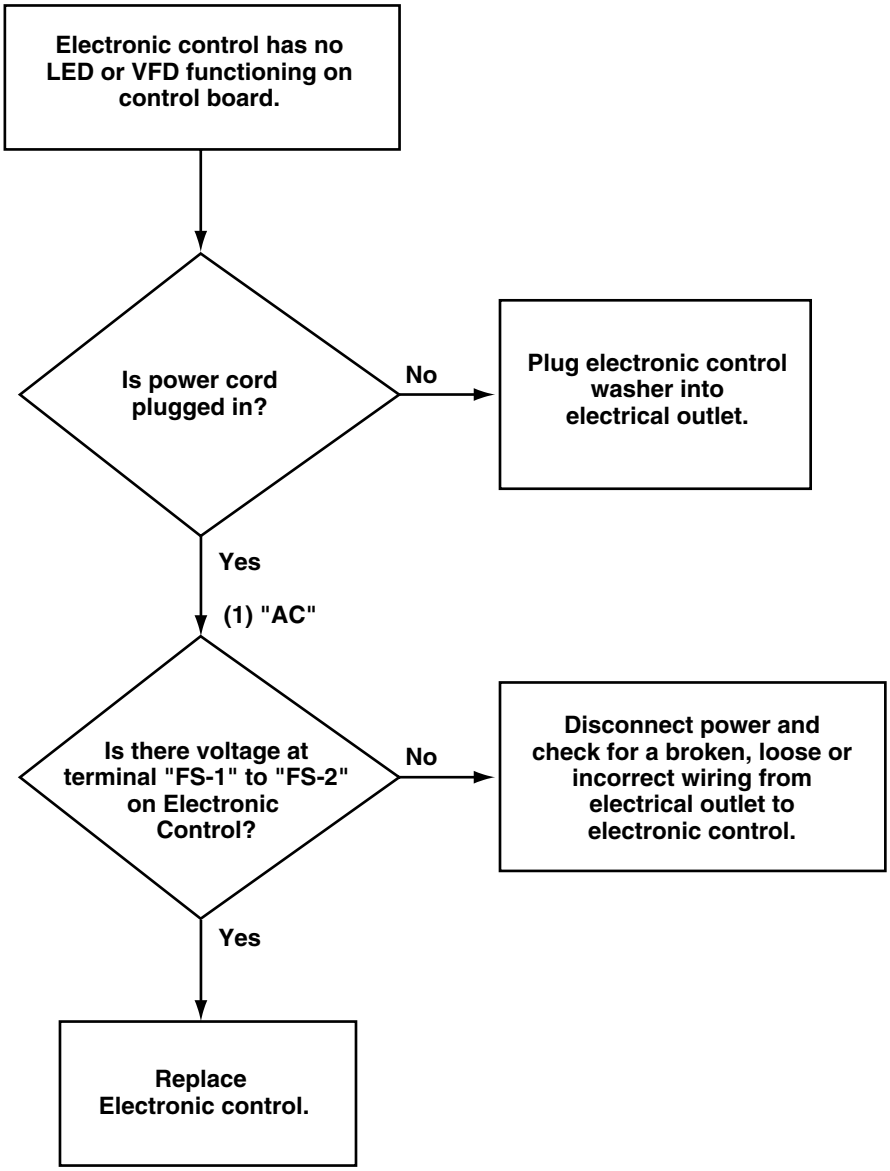
8. ELECTRONIC CONTROL HAS NO VISIBLE DISPLAY – WASHER


Electronic control has no LED or VFD functioning on control board.
Is power cord plugged in?
No
Plug electronic control washer into electrical outlet.
Yes
(1) "AC"
Is there voltage at terminal "FS-1" to "FS-2" on Electronic Control?
No
Disconnect power and check for a broken, loose or incorrect wiring from electrical outlet to electronic control.
Yes
Replace Electronic control.

H132SE3B

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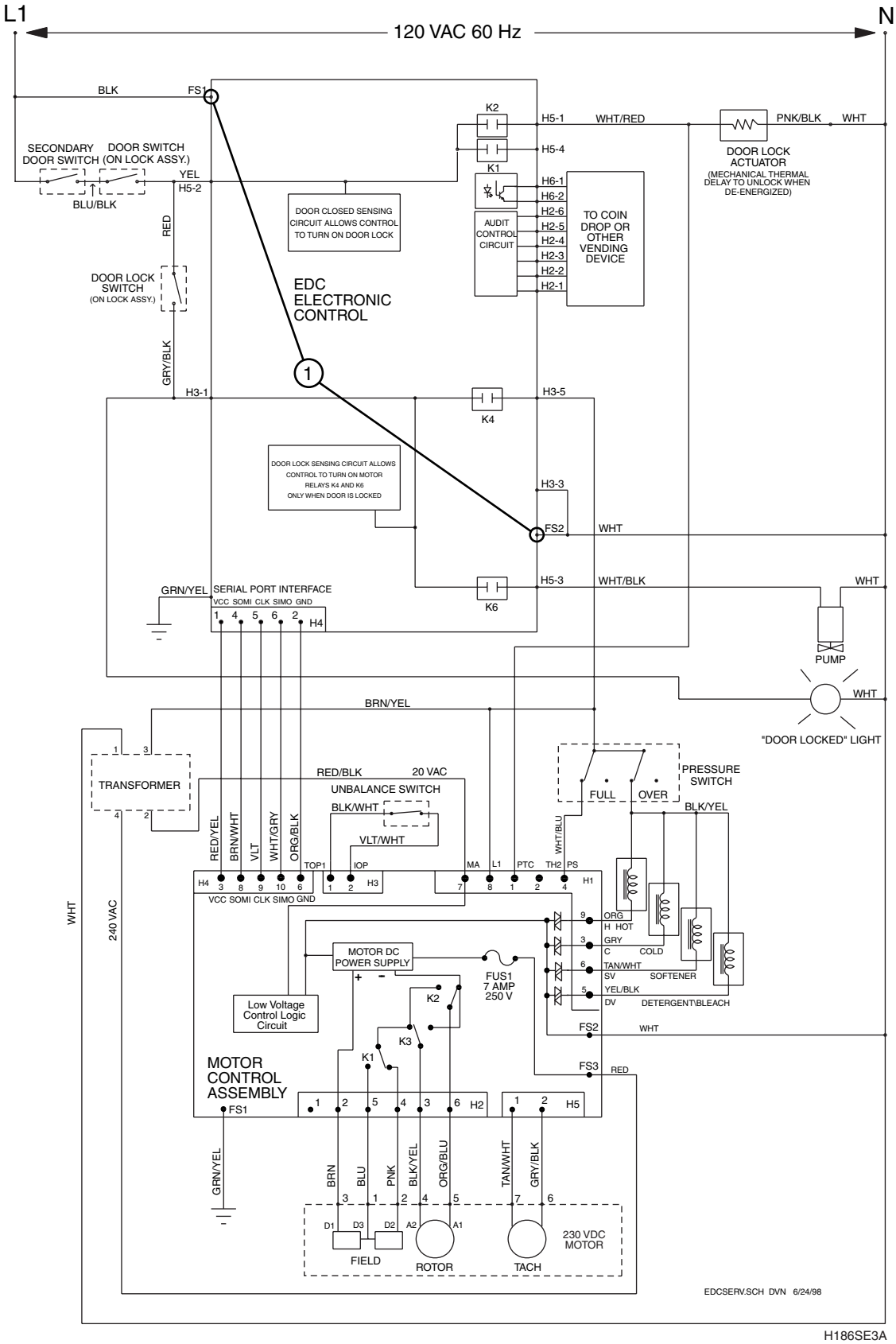
ELECTRONIC CONTROL HAS NO VISIBLE DISPLAY – WASHER

EDC FRONT LOAD WASHER MODEL



H186SE3A

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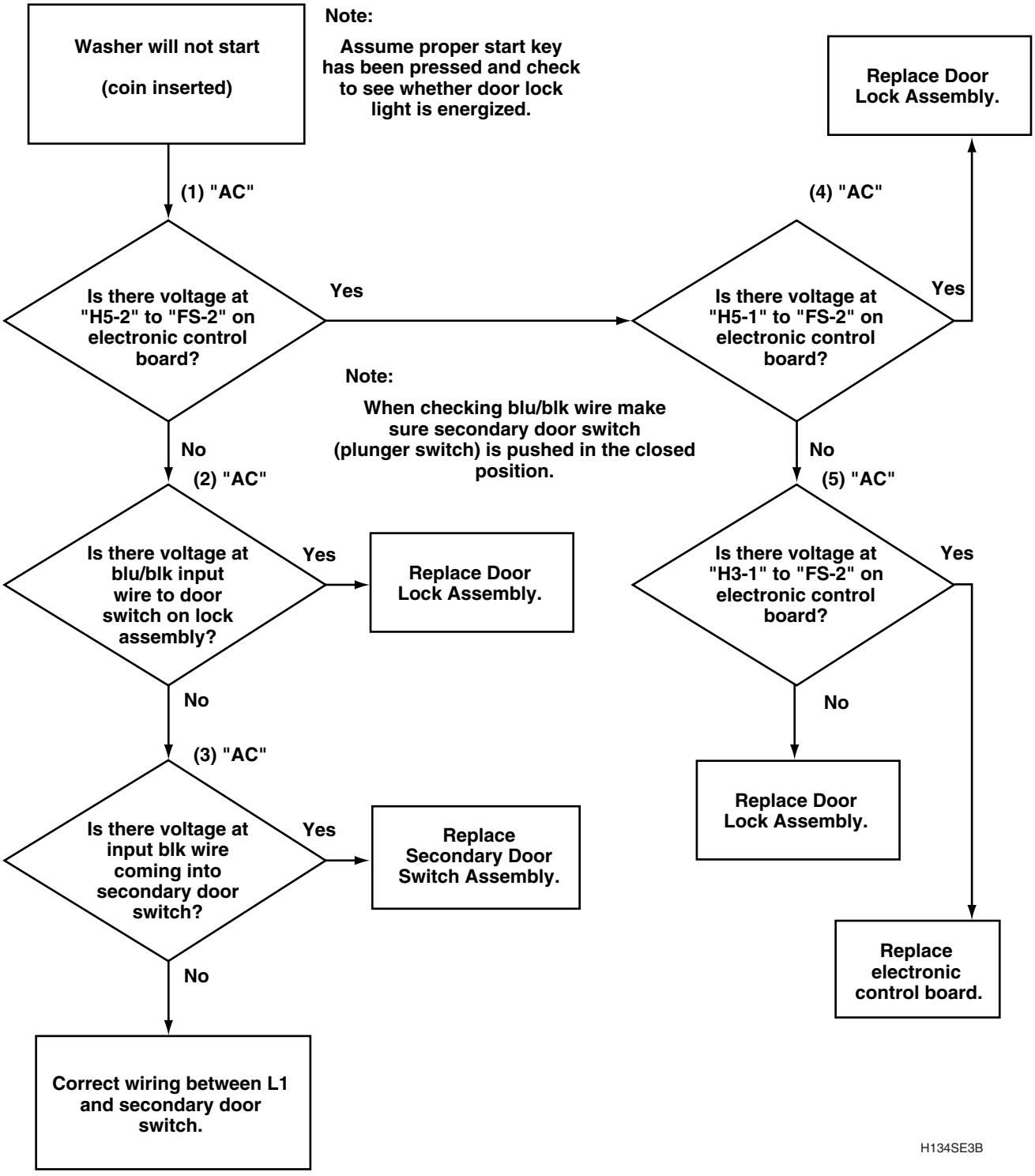
9. WASHER WILL NOT START (DOOR AND DOOR LOCK SWITCH) – NO DOOR LOCK ONLY


Washer will not start
(coin inserted)
Note:
Assume proper start key has been pressed and check to see whether door lock light is energized.
(1) "AC"
Is there voltage at "H5-2" to "FS-2" on electronic control board?
Yes
No
(2) "AC"
Is there voltage at blu/blk input wire to door switch on lock assembly?
Yes
Replace Door Lock Assembly.
No
(3) "AC"
Is there voltage at input blk wire coming into secondary door switch?
Yes
Replace Secondary Door Switch Assembly.
No
Correct wiring between L1 and secondary door switch.
Note:
When checking blu/blk wire make sure secondary door switch (plunger switch) is pushed in the closed position.
(4) "AC"
Is there voltage at "H5-1" to "FS-2" on electronic control board?
Yes
Replace Door Lock Assembly.
No
(5) "AC"
Is there voltage at "H3-1" to "FS-2" on electronic control board?
Yes
Replace electronic control board.
No
Replace Door Lock Assembly.
H134SE3B

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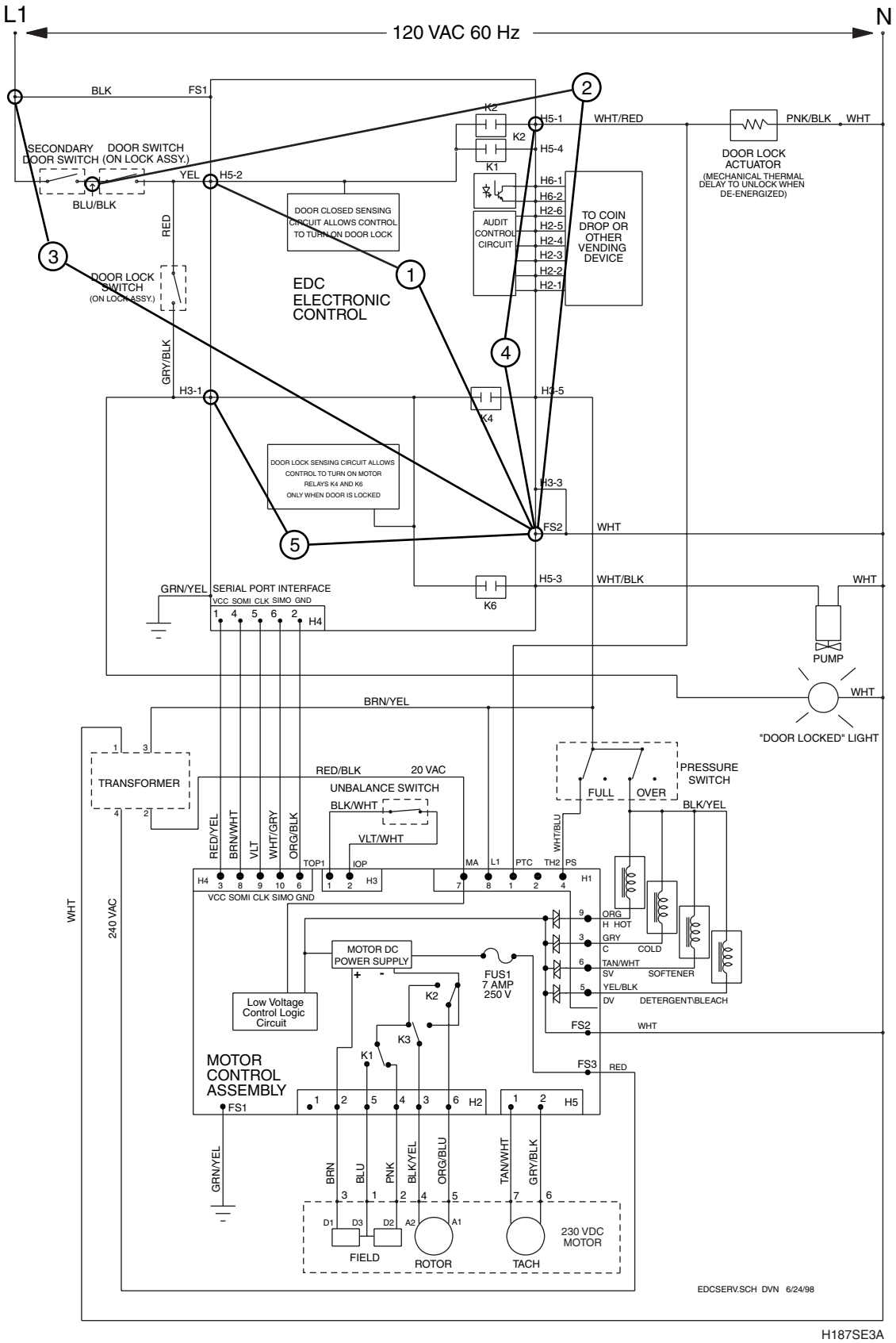
WASHER WILL NOT START (DOOR AND DOOR LOCK SWITCH) – NO DOOR LOCK ONLY

EDC FRONT LOAD WASHER MODEL



H187SE3A

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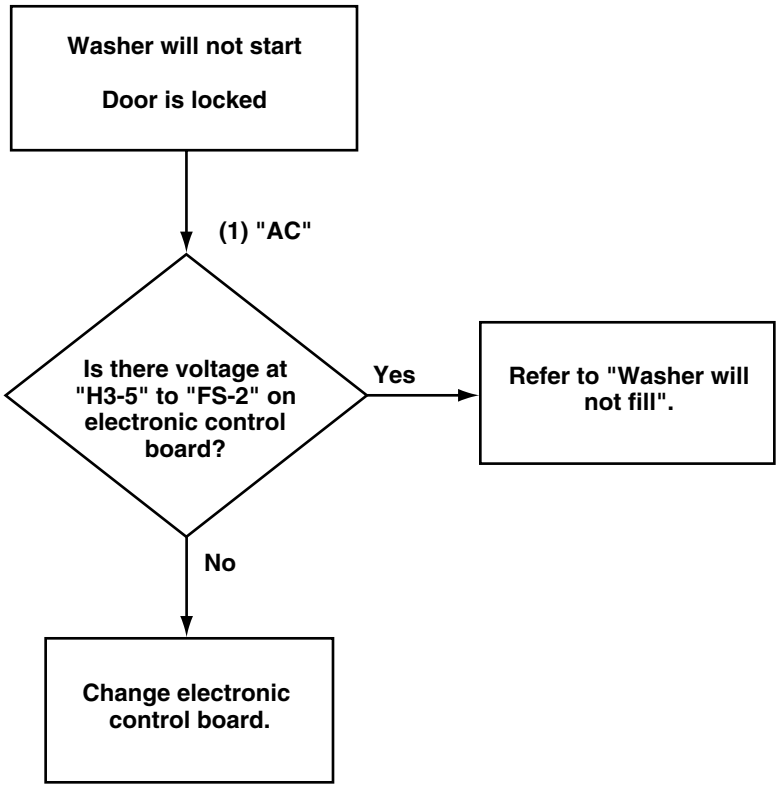
10. WASHER WILL NOT START (ELECTRONIC CONTROL ANALYSIS)


Washer will not start
Door is locked
(1) "AC"
Is there voltage at "H3-5" to "FS-2" on electronic control board?
Yes
Refer to "Washer will not fill".
No
Change electronic control board.

H136SE3B

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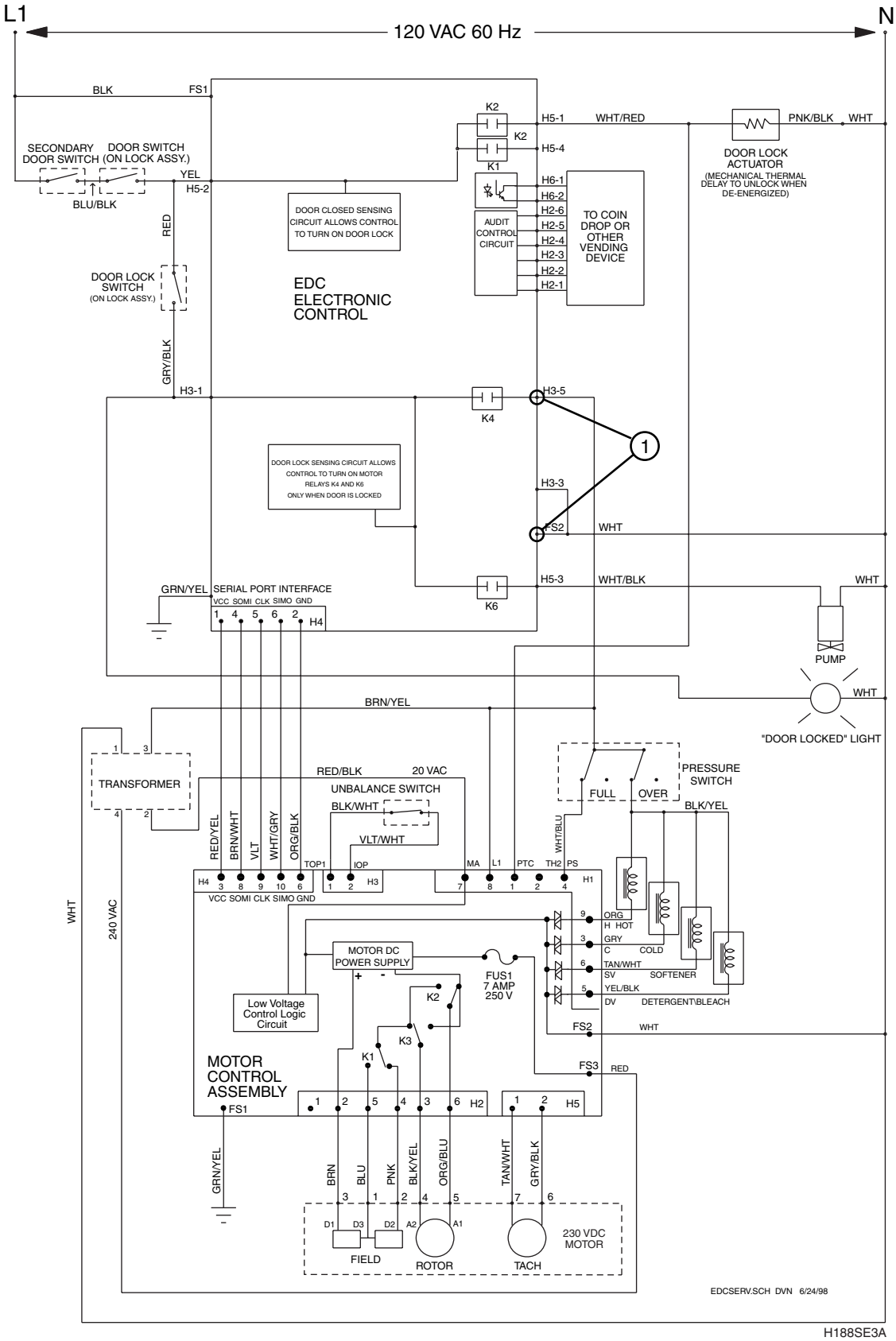
WASHER WILL NOT START (ELECTRONIC CONTROL ANALYSIS)

EDC FRONT LOAD WASHER MODEL



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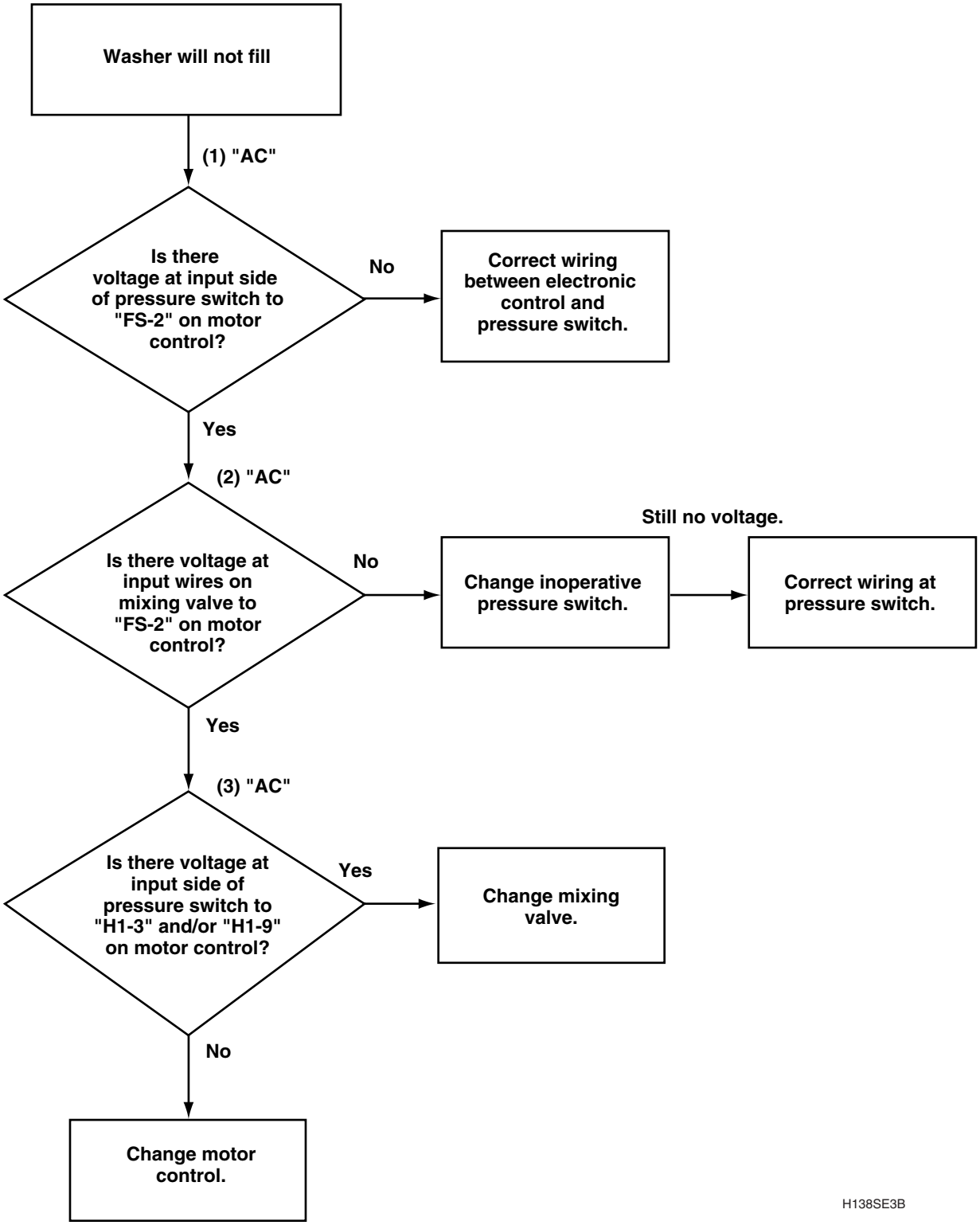
11. WASHER WILL NOT FILL


Washer will not fill
(1) "AC"
Is there voltage at input side of pressure switch to "FS-2" on motor control?
No
Correct wiring between electronic control and pressure switch.
Yes
(2) "AC"
Is there voltage at input wires on mixing valve to "FS-2" on motor control?
No
Change inoperative pressure switch.
Still no voltage.
Correct wiring at pressure switch.
Yes
(3) "AC"
Is there voltage at input side of pressure switch to "H1-3" and/or "H1-9" on motor control?
Yes
Change mixing valve.
No
Change motor control.
H138SE3B

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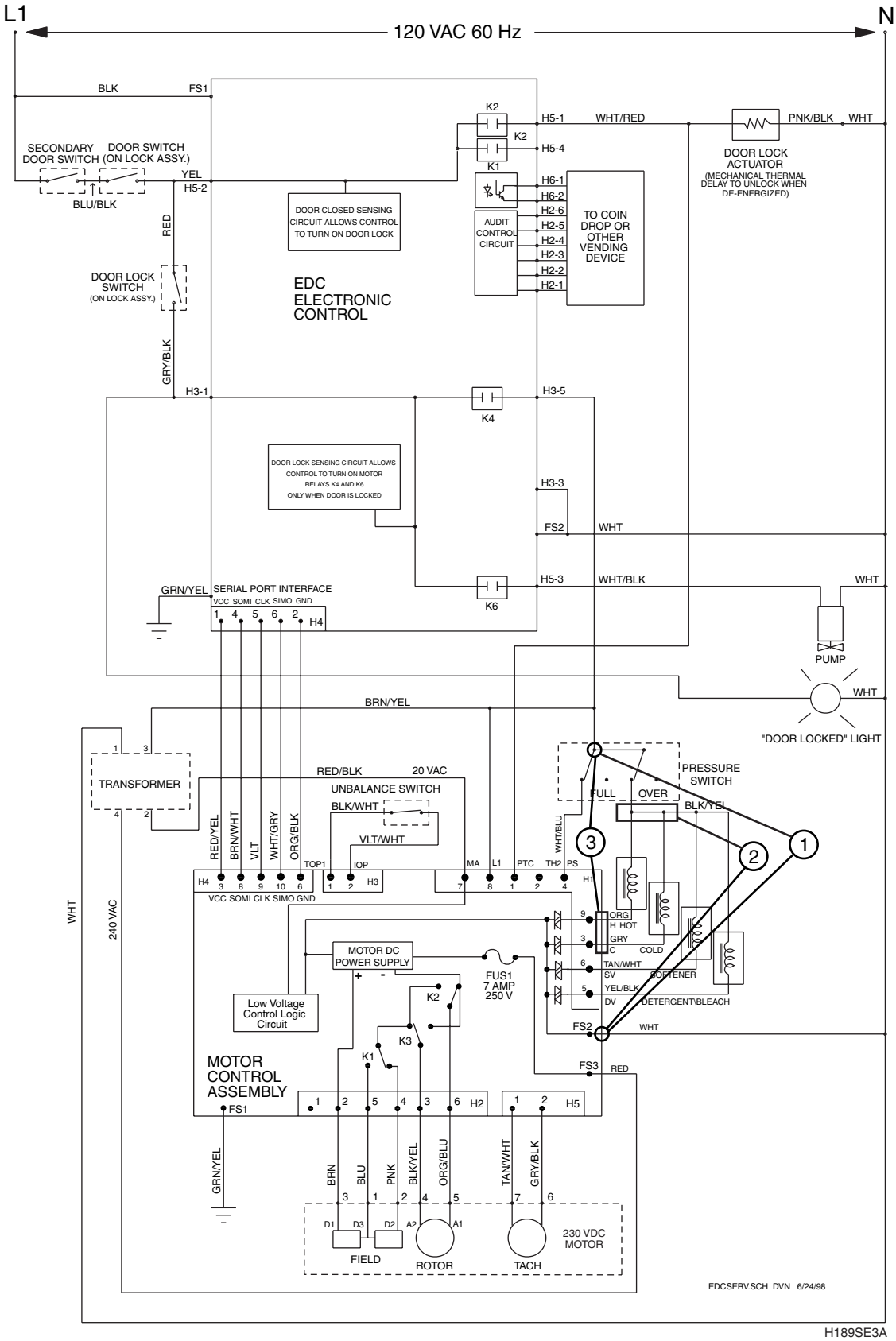
WASHER WILL NOT FILL

EDC FRONT LOAD WASHER MODEL



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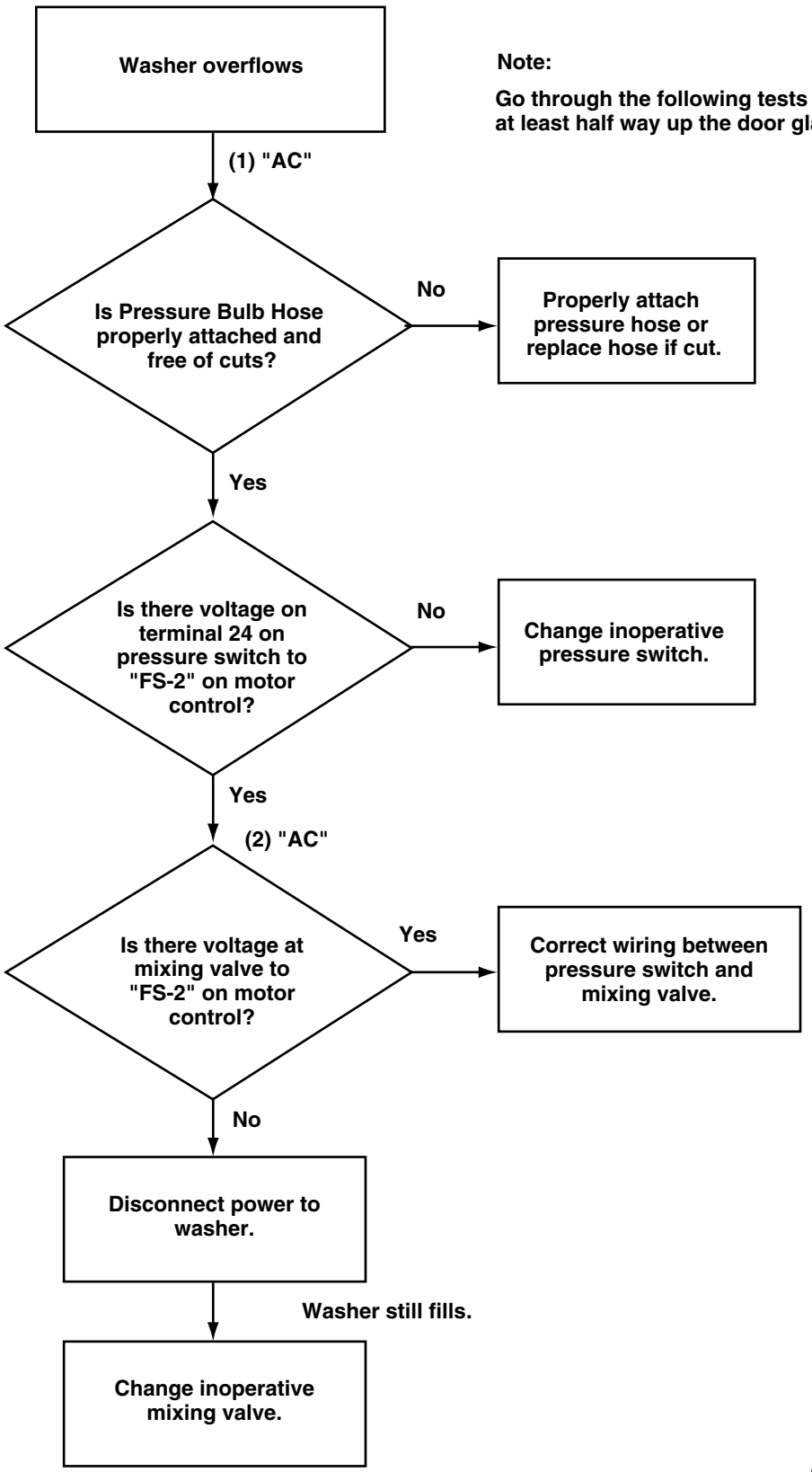
12. WASHER OVERFLOWS


Washer overflows
Note:
Go through the following tests if water is at least half way up the door glass.
(1) "AC"
Is Pressure Bulb Hose properly attached and free of cuts?
No
Properly attach pressure hose or replace hose if cut.
Yes
Is there voltage on terminal 24 on pressure switch to "FS-2" on motor control?
No
Change inoperative pressure switch.
Yes
(2) "AC"
Is there voltage at mixing valve to "FS-2" on motor control?
Yes
Correct wiring between pressure switch and mixing valve.
No
Disconnect power to washer.
Washer still fills.
Change inoperative mixing valve.
H140SE3B

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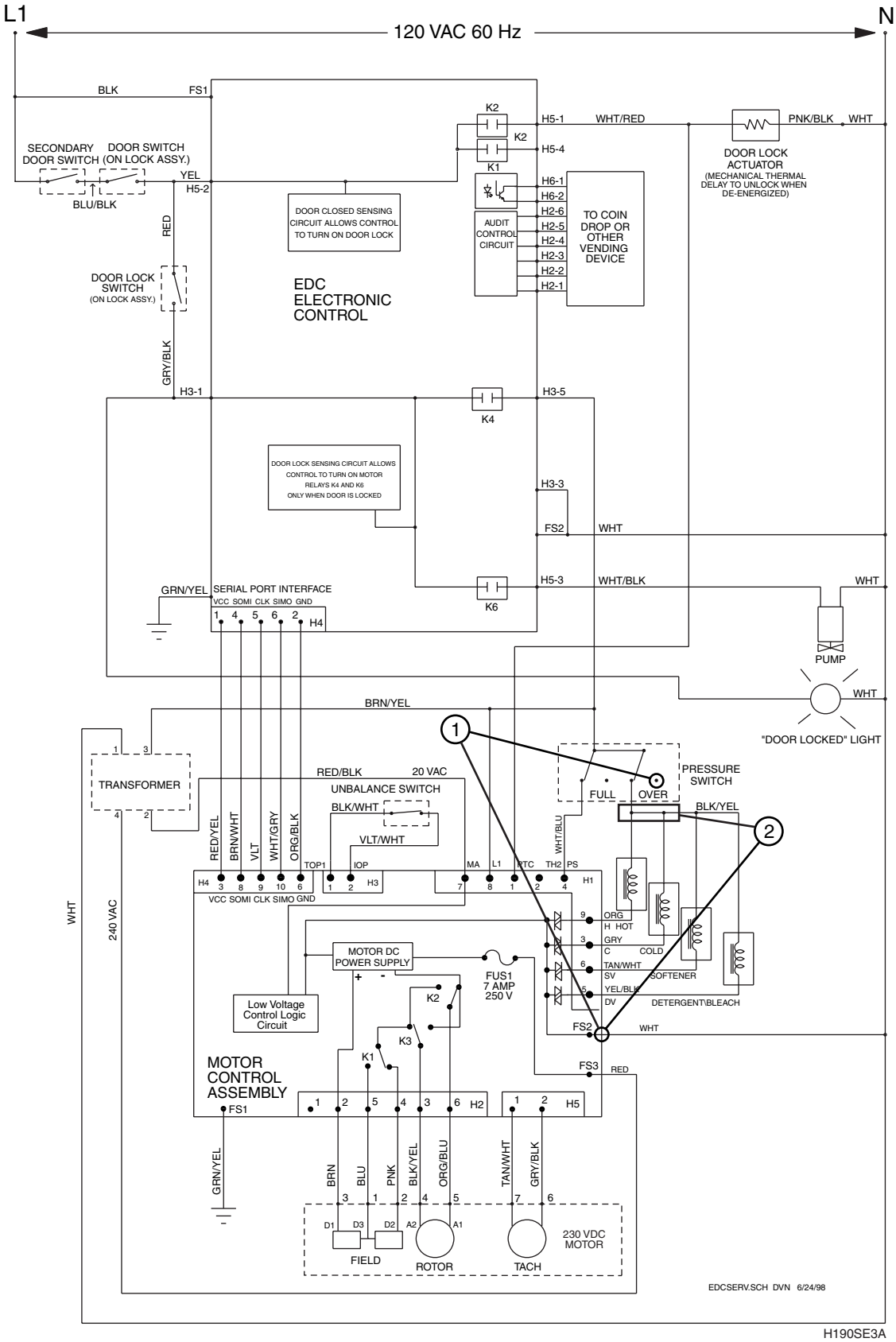
WASHER OVERFLOWS

EDC FRONT LOAD WASHER MODEL



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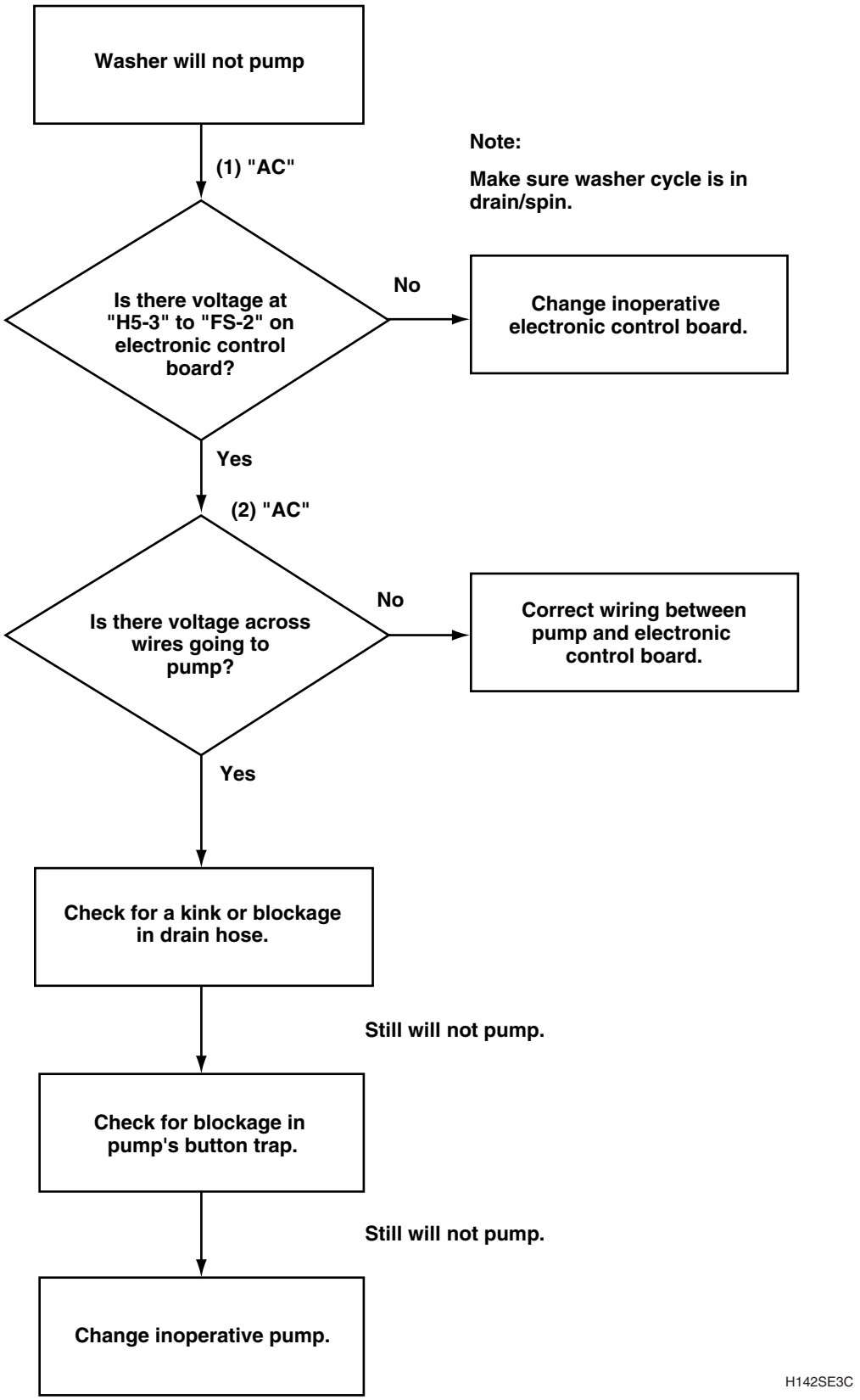
13. WASHER WILL NOT PUMP


Washer will not pump
(1) "AC"
Note:
Make sure washer cycle is in drain/spin.
Is there voltage at "H5-3" to "FS-2" on electronic control board?
No
Change inoperative electronic control board.
Yes
(2) "AC"
Is there voltage across wires going to pump?
No
Correct wiring between pump and electronic control board.
Yes
Check for a kink or blockage in drain hose.
Still will not pump.
Check for blockage in pump's button trap.
Still will not pump.
Change inoperative pump.
H142SE3C

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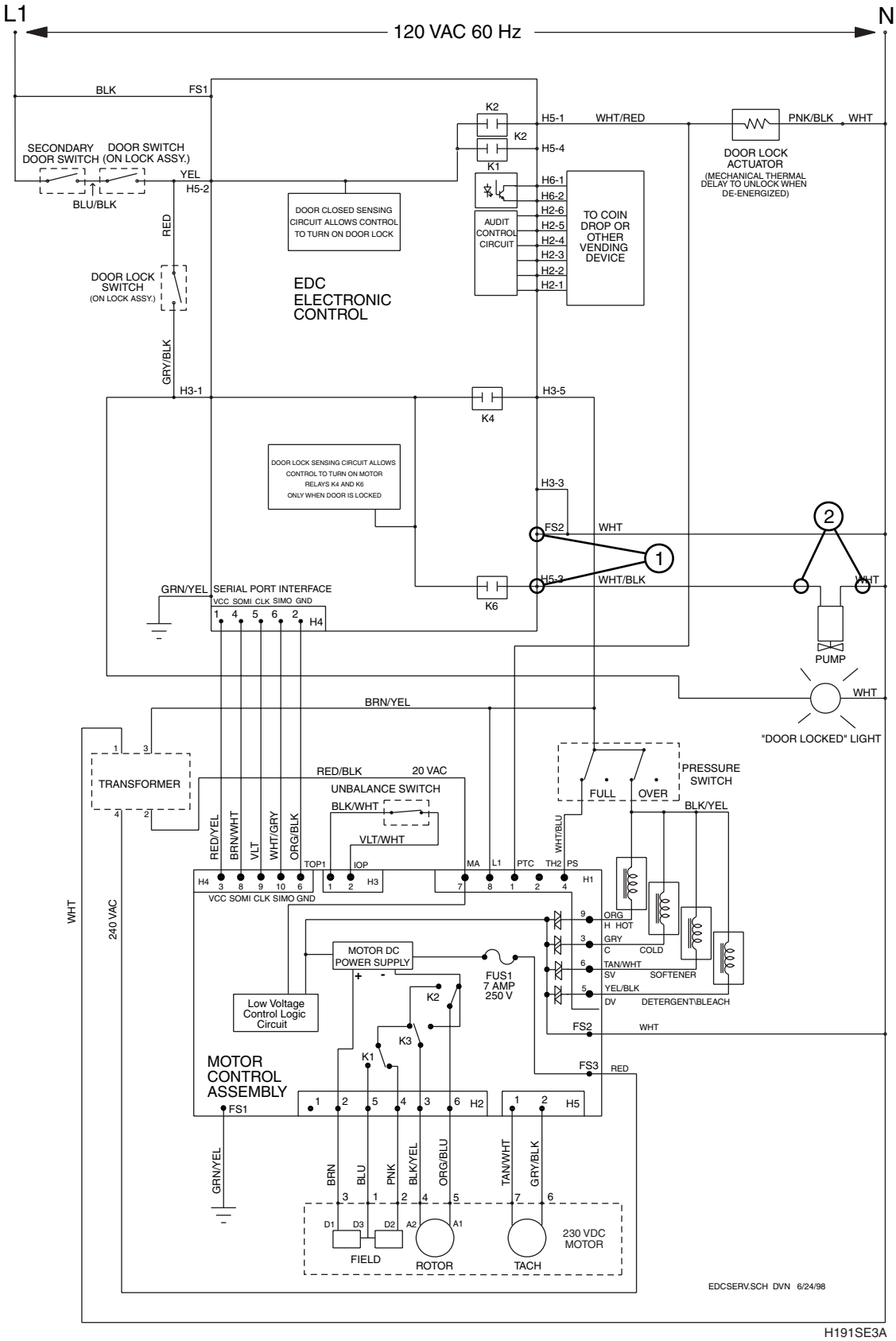
WASHER WILL NOT PUMP

EDC FRONT LOAD WASHER MODEL



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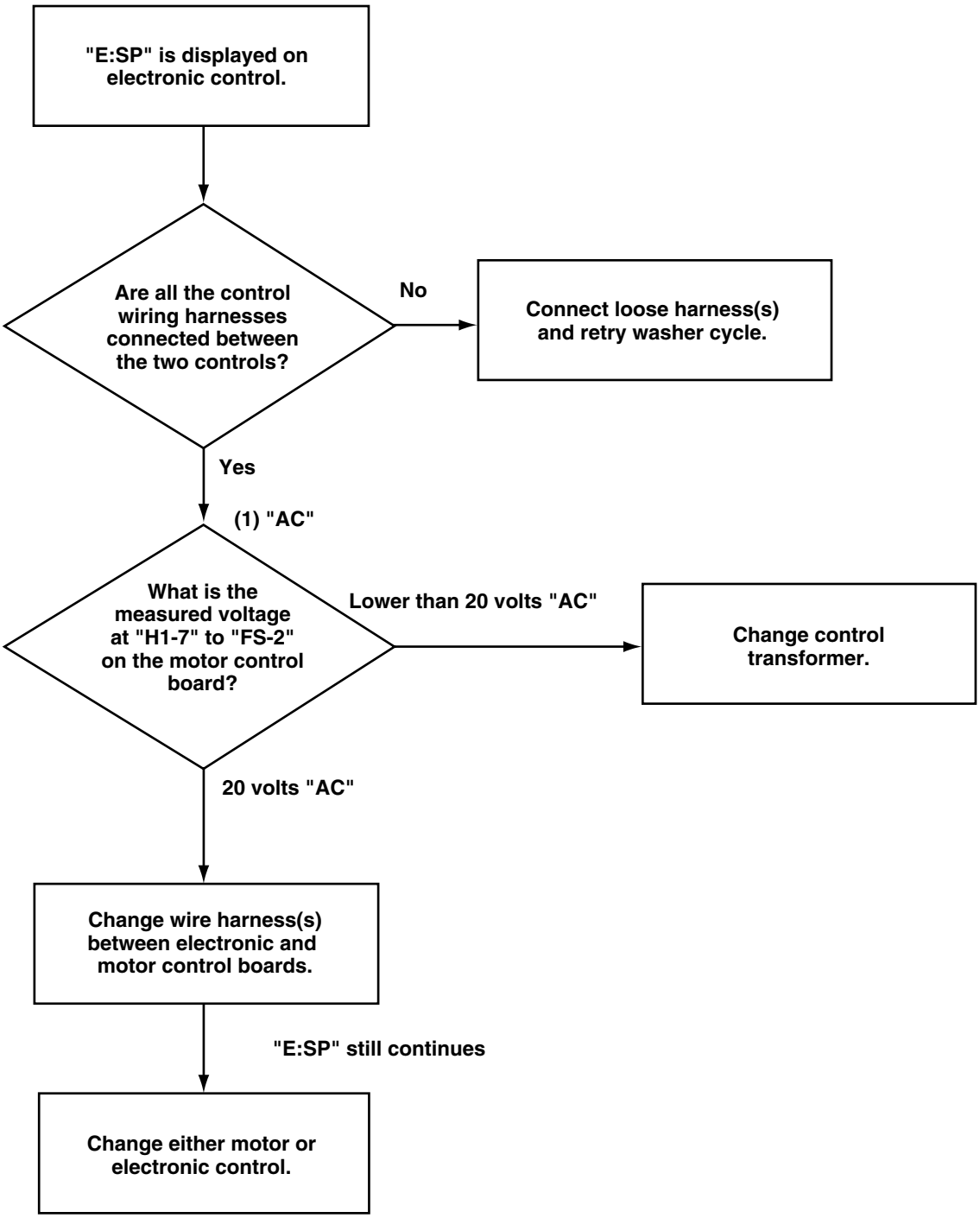
14. "E:SP" ERROR ANALYSIS


"E:SP" is displayed on electronic control.
Are all the control wiring harnesses connected between the two controls?
No
Connect loose harness(s) and retry washer cycle.
Yes
(1) "AC"
What is the measured voltage at "H1-7" to "FS-2" on the motor control board?
Lower than 20 volts "AC"
Change control transformer.
20 volts "AC"
Change wire harness(s) between electronic and motor control boards.
"E:SP" still continues
Change either motor or electronic control.

H144SE3B

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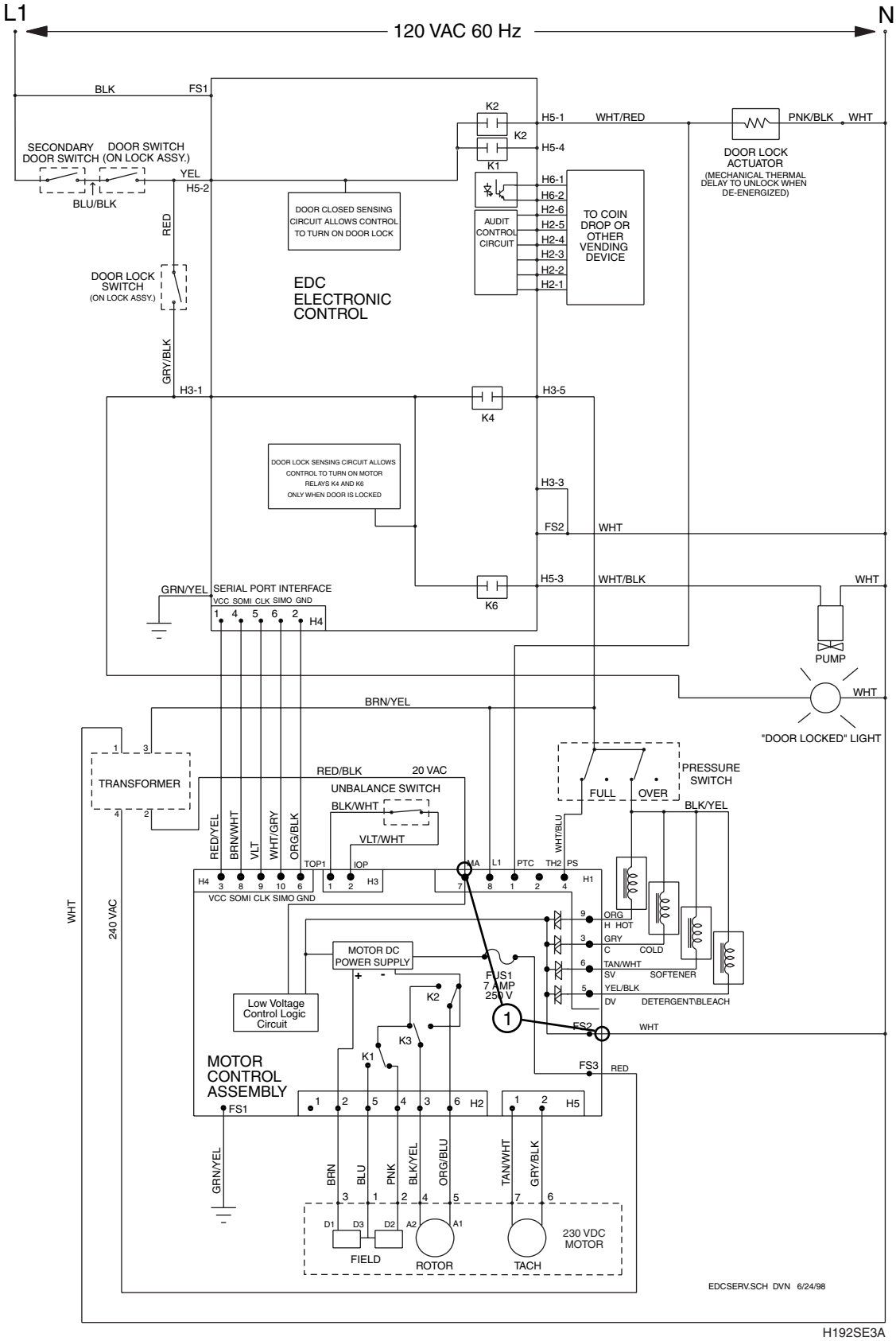
"E:SP" ERROR ANALYSIS

EDC FRONT LOAD WASHER MODEL



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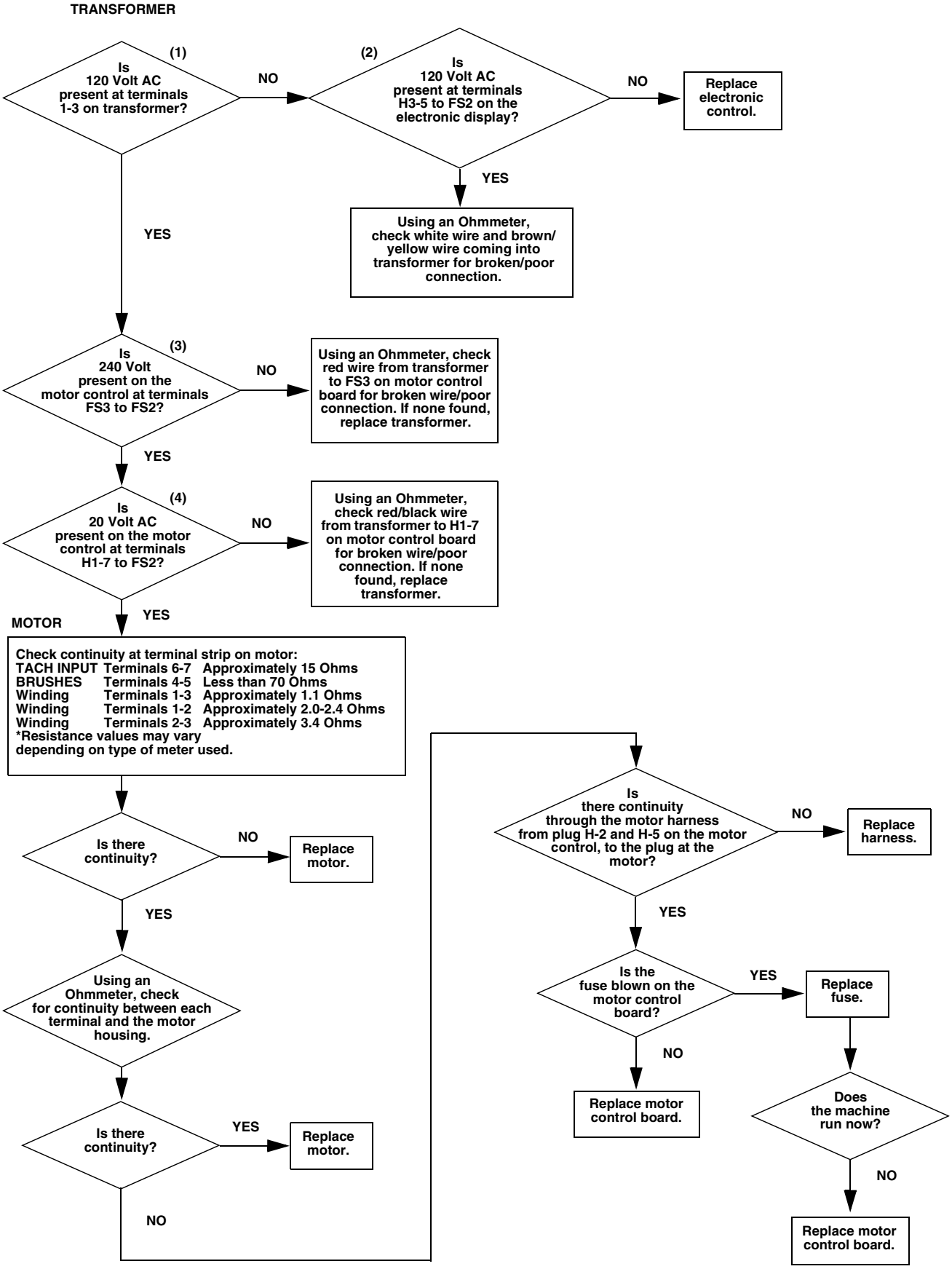
15. DOOR LOCKED, MOTOR DOES NOT RUN (E:DF ON DISPLAY)


TRANSFORMER
(1)
Is 120 Volt AC present at terminals 1-3 on transformer?
NO
(2)
Is 120 Volt AC present at terminals H3-5 to FS2 on the electronic display?
NO
Replace electronic control.
YES
Using an Ohmmeter, check white wire and brown/ yellow wire coming into transformer for broken/poor connection.
YES
(3)
Is 240 Volt present on the motor control at terminals FS3 to FS2?
NO
Using an Ohmmeter, check red wire from transformer to FS3 on motor control board for broken wire/poor connection. If none found, replace transformer.
YES
(4)
Is 20 Volt AC present on the motor control at terminals H1-7 to FS2?
NO
Using an Ohmmeter, check red/black wire from transformer to H1-7 on motor control board for broken wire/poor connection. If none found, replace transformer.
YES
MOTOR
Check continuity at terminal strip on motor:
TACH INPUT Terminals 6-7 Approximately 15 Ohms
BRUSHES Terminals 4-5 Less than 70 Ohms
Winding Terminals 1-3 Approximately 1.1 Ohms
Winding Terminals 1-2 Approximately 2.0-2.4 Ohms
Winding Terminals 2-3 Approximately 3.4 Ohms
*Resistance values may vary depending on type of meter used.
Is there continuity?
NO
Replace motor.
YES
Using an Ohmmeter, check for continuity between each terminal and the motor housing.
Is there continuity?
YES
Replace motor.
NO
Is there continuity through the motor harness from plug H-2 and H-5 on the motor control, to the plug at the motor?
NO
Replace harness.
YES
Is the fuse blown on the motor control board?
YES
Replace fuse.
NO
Replace motor control board.
Does the machine run now?
NO
Replace motor control board.

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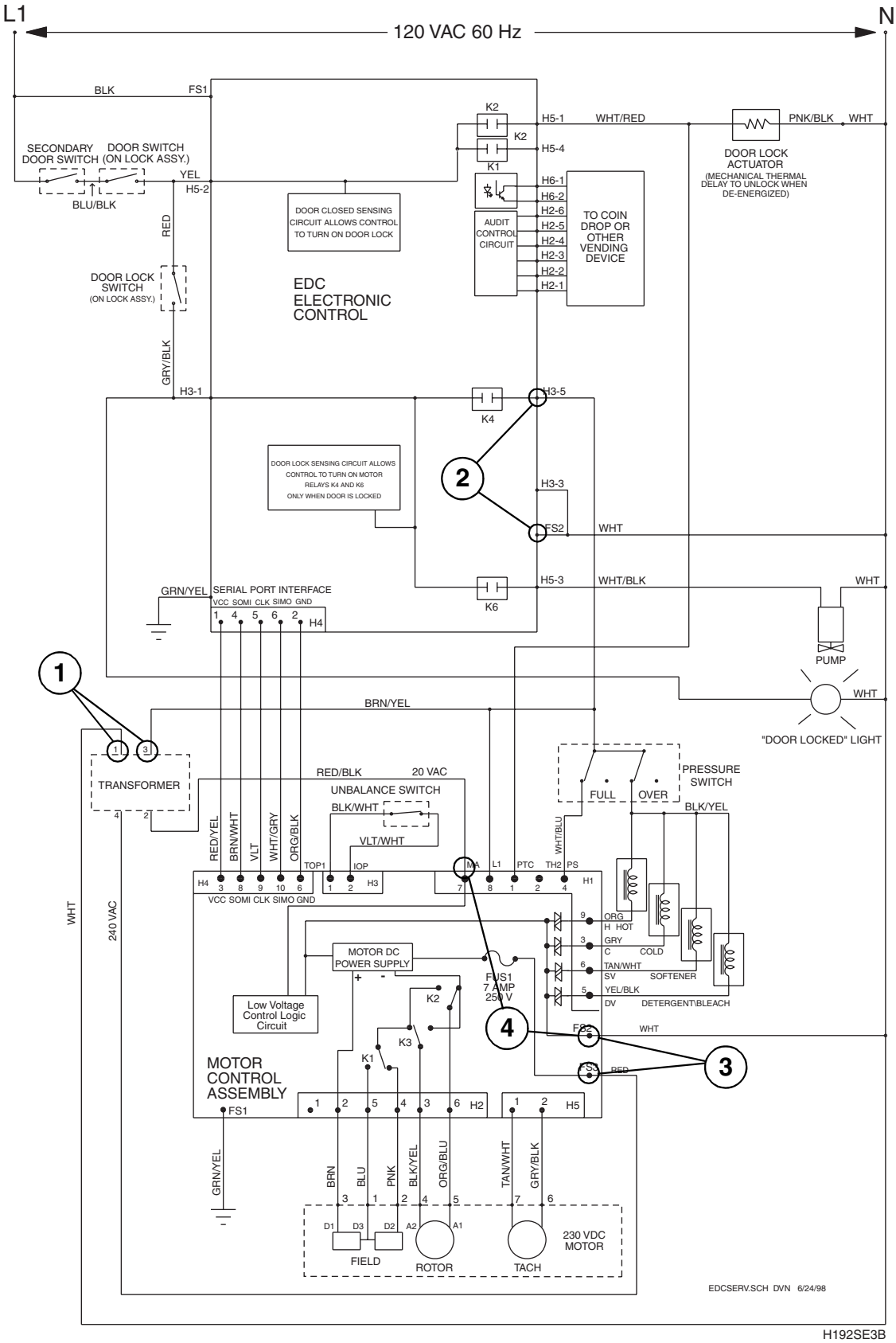
DOOR LOCKED, MOTOR DOES NOT RUN (E:DF ON DISPLAY)

EDC FRONT LOAD WASHER MODEL



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16. START UP SEQUENCE

a. Insert money and/or card and push the button next to the flashing light.
b. Both door closed switches need to be in the closed position, after vend price has been satisfied.
c. The door lock actuator is energized from “H5-1” terminal on electronic control board.
d. The door lock switch is closed.
e. The “K4” relay is closed on electronic control board.
f. The control transformer is energized.
g. Communications begin between electronic and motor control boards through the SPI lines to the optoisolators on electronic control.
h. The mixing valve is energized and washer begins to fill.
i. The main drive motor is powered to start inner basket rotating.

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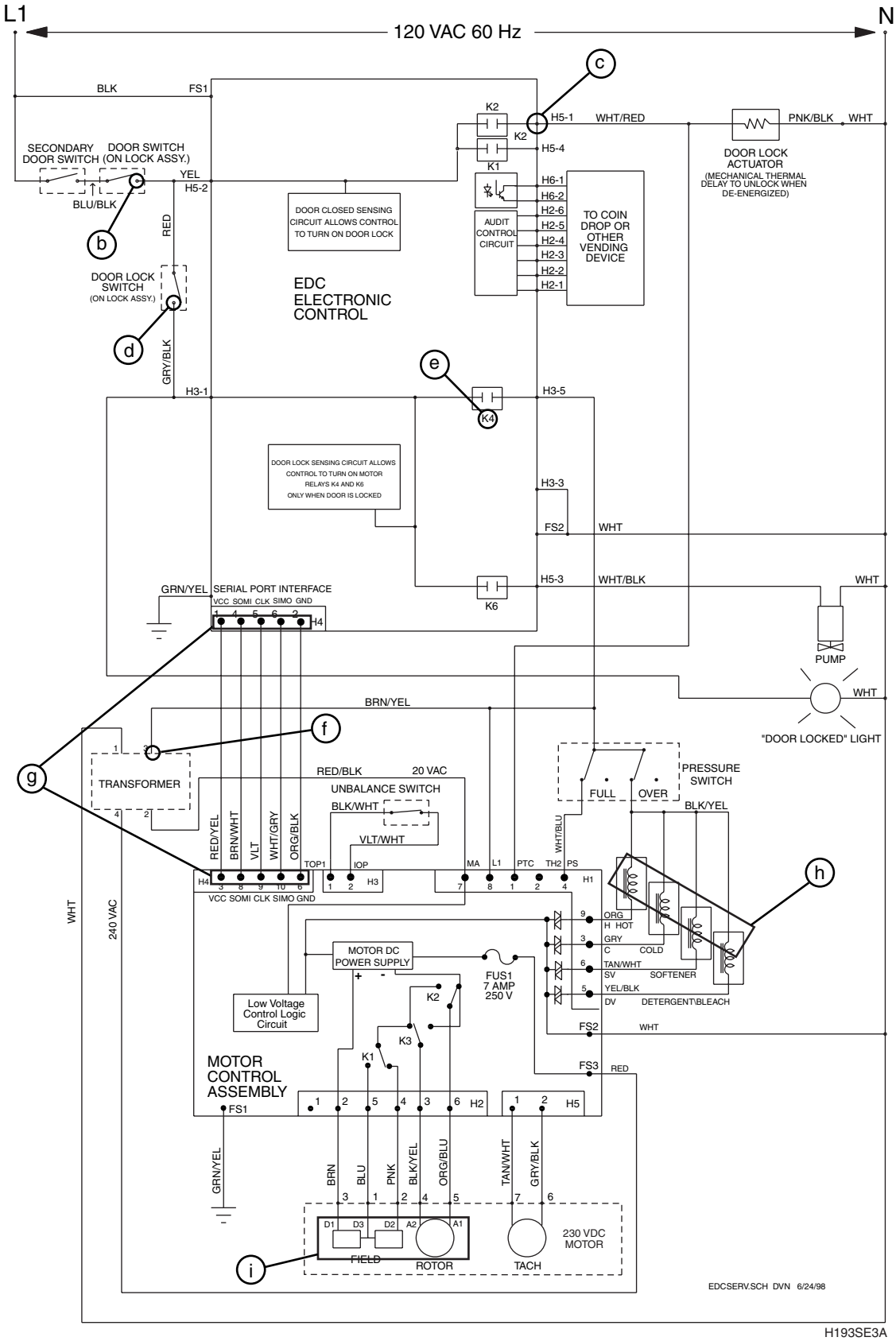
START UP SEQUENCE

EDC FRONT LOAD WASHER MODEL



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17. SHUT DOWN SEQUENCE

a. Towards end of cycle, ":01" is on display. The door lock actuator is powered down and "K2" relay on electronic control is opened.
b. The door lock switch is opened after a one-minute delay. The display will show ":00".
c. The door switches will open when loading door opens.

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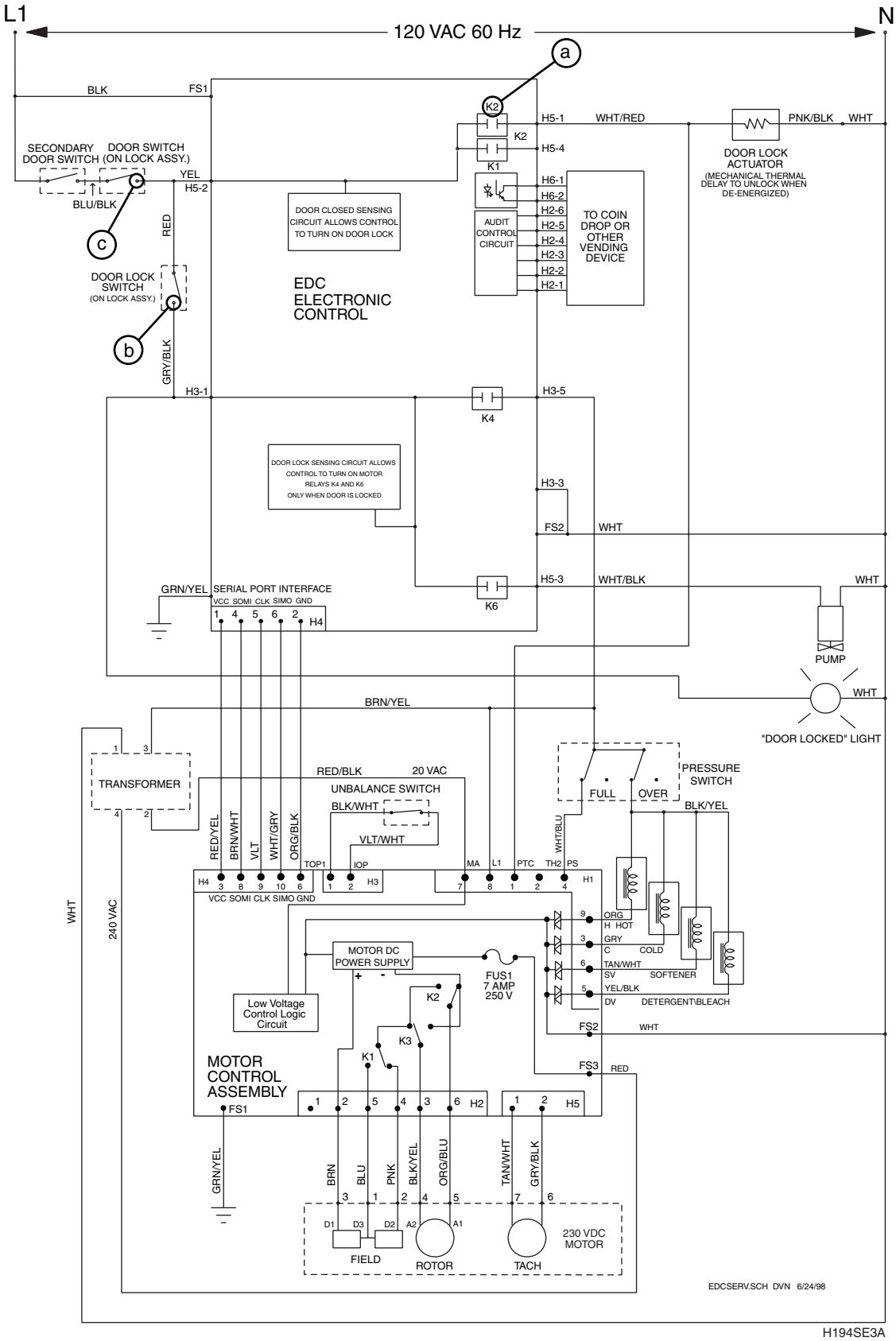
SHUT DOWN SEQUENCE

EDC FRONT LOAD WASHER MODEL



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Notes

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Troubleshooting

MDC Models – Washer Control

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

18. ERROR CODE LISTING

E:df	Drive failure.	This error code is generated by the motor control and transmitted to the master control. Several conditions can cause this code; motor unplugged, motor failure, tachometer circuit open, inner basket locked up. This is a fatal error. Machine must be unpowered to reset.
E:SP	Serial communication error.	This error occurs when the master control cannot communicate with the motor control. The master control will try to reset the motor control by powering it down. It will try resetting three times before setting the error code. Common causes include defective or unplugged transformer, and incorrect wiring to motor control. This is a fatal error.
E:FL	Fill error.	This error occurs if the pressure switch fails to open in 30 minutes in any fill/agitate cycle. This is a fatal error.
dor	Door Open Indicator.	This error occurs when the door is not closed at the start of an active cycle. If the door is closed, check for wiring or door switches.
E:do	Door open error.	This error occurs if the control detects the door open and door locked inputs high at the same time. You can get this error if you jerk on the door when it is locked or as it is about to lock. This is a fatal error.
E:dL	Door lock error.	This error occurs if the door does not lock in 15 seconds or unlock in 3 minutes at the end of the cycle. This is a non-fatal error. If the door locks or unlocks while E:dL is displayed it will clear the error condition. Also, if the door is opened after failing to lock it will clear the display.

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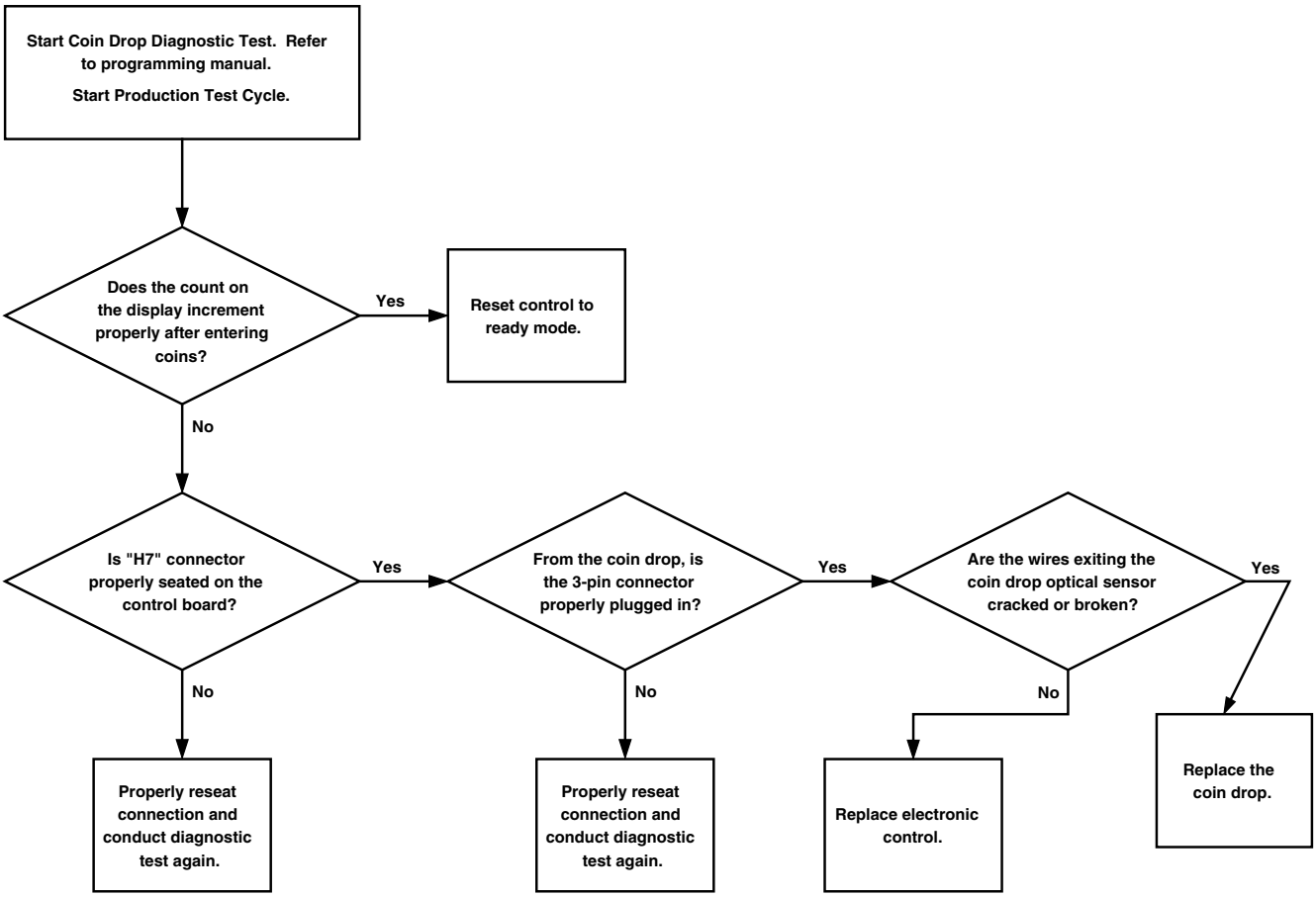
19. COINS IGNORED WHEN ENTERED


Start Coin Drop Diagnostic Test. Refer to programming manual.
Start Production Test Cycle.
Does the count on the display increment properly after entering coins?
Yes
Reset control to ready mode.
No
Is "H7" connector properly seated on the control board?
Yes
From the coin drop, is the 3-pin connector properly plugged in?
Yes
Are the wires exiting the coin drop optical sensor cracked or broken?
Yes
No
No
No
Properly reseat connection and conduct diagnostic test again.
Properly reseat connection and conduct diagnostic test again.
Replace electronic control.
Replace the coin drop.

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Notes

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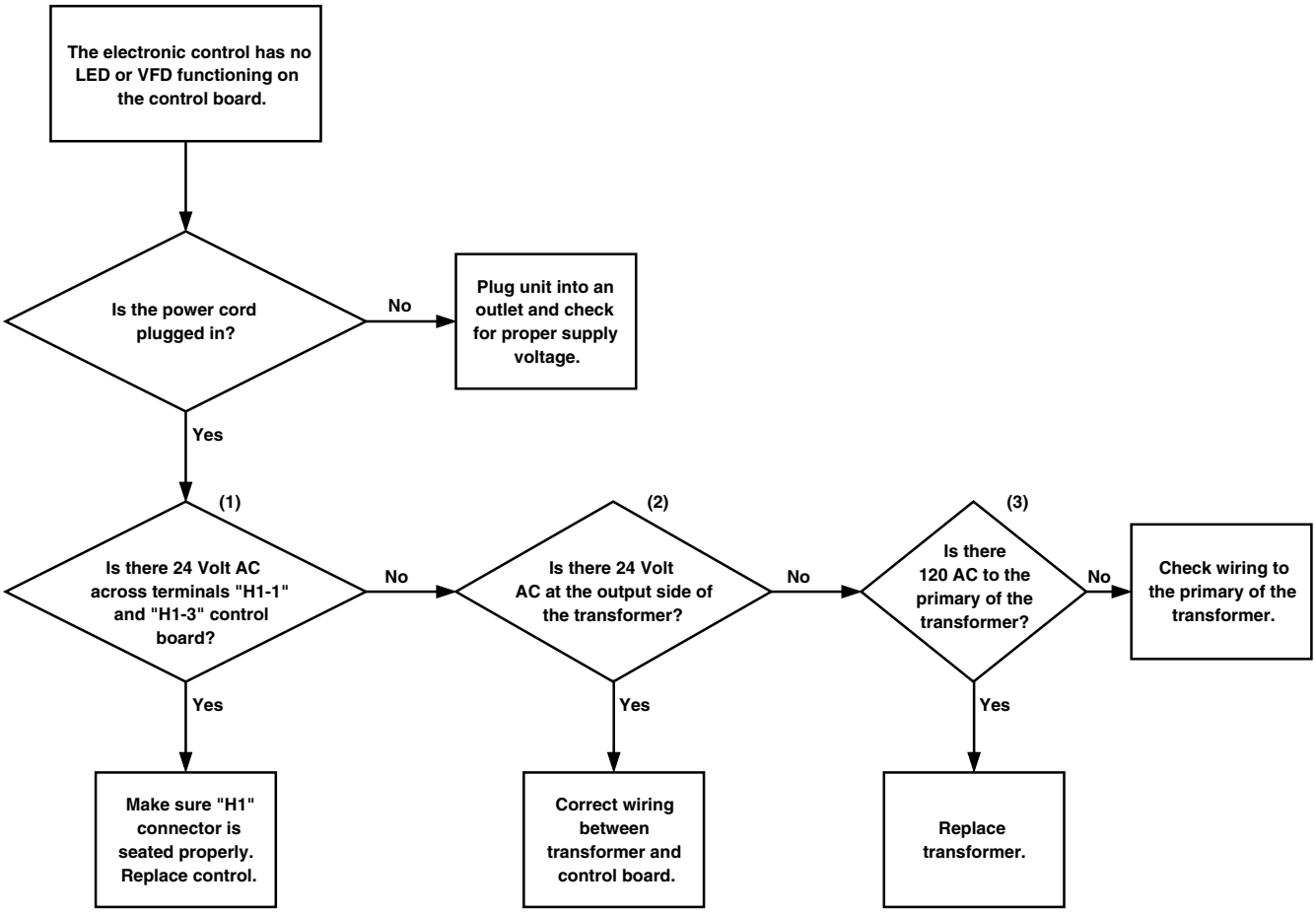
20. NO VISIBLE DISPLAY ON CONTROL


The electronic control has no LED or VFD functioning on the control board.
Is the power cord plugged in?
No
Plug unit into an outlet and check for proper supply voltage.
Yes
(1)
Is there 24 Volt AC across terminals "H1-1" and "H1-3" control board?
No
(2)
Is there 24 Volt AC at the output side of the transformer?
No
(3)
Is there 120 AC to the primary of the transformer?
No
Check wiring to the primary of the transformer.
Yes
Make sure "H1" connector is seated properly. Replace control.
Yes
Correct wiring between transformer and control board.
Yes
Replace transformer.

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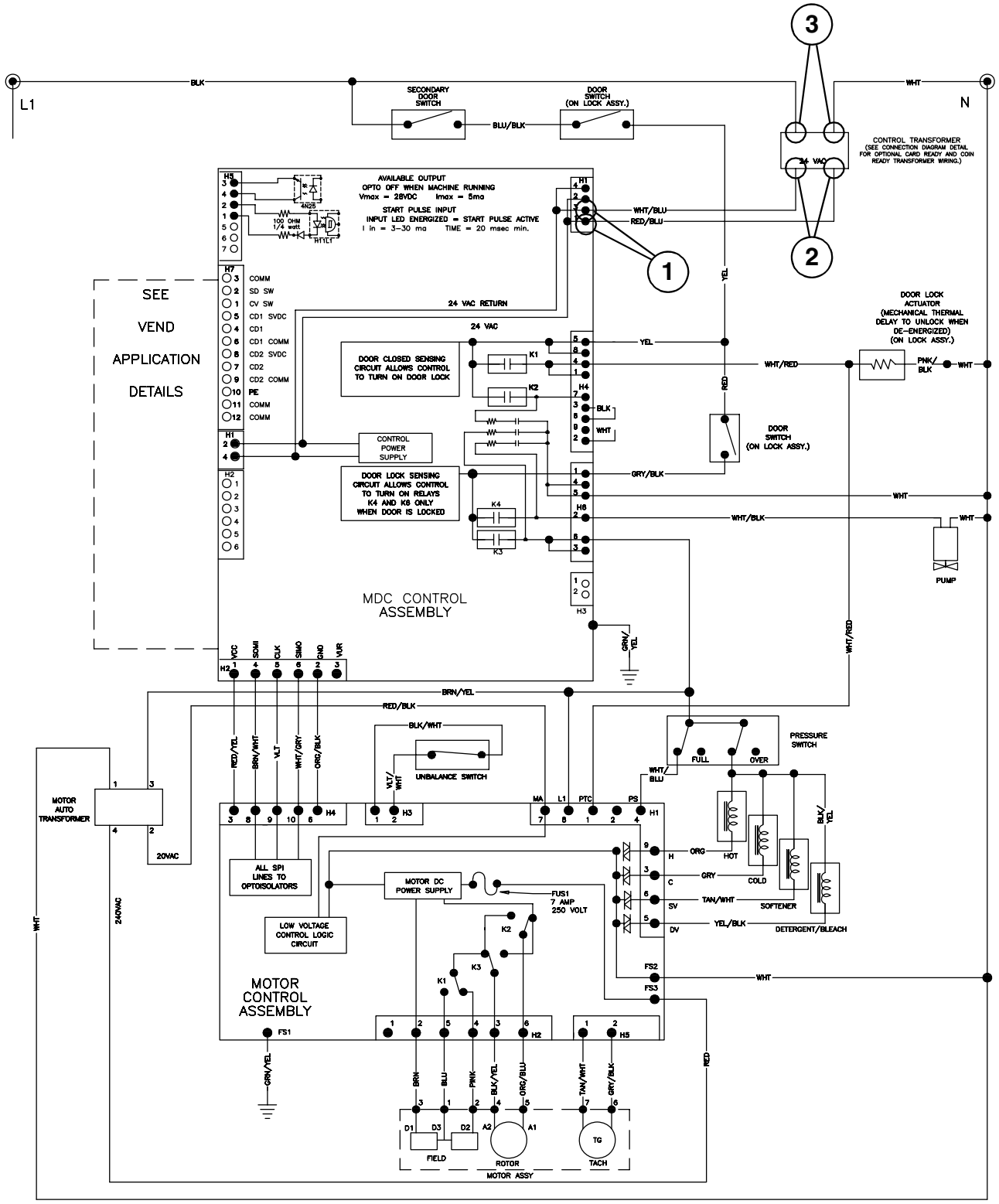
NO VISIBLE DISPLAY ON CONTROL



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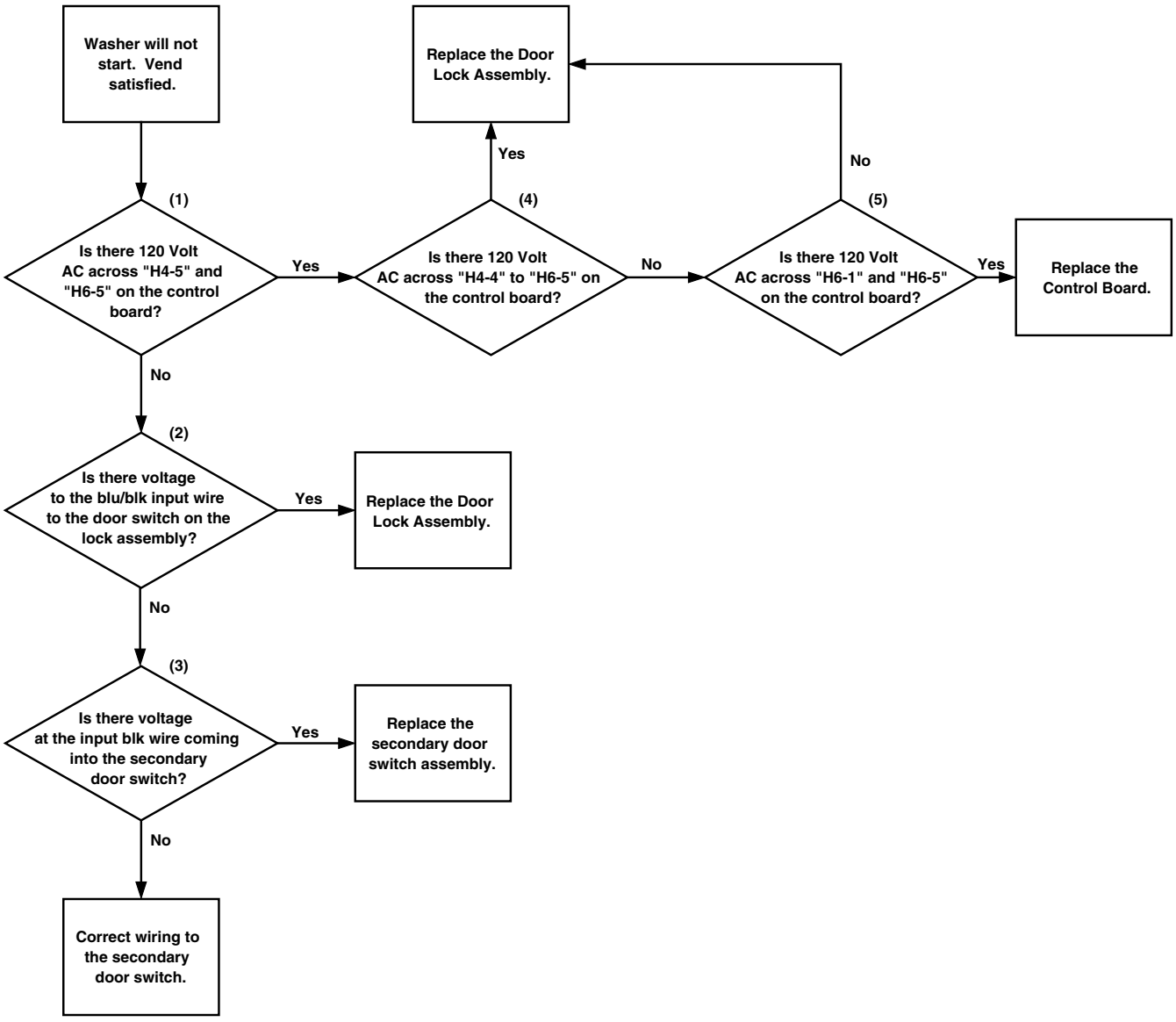
21. WASHER WILL NOT START – NO DOOR LOCK


Washer will not start. Vend satisfied.
(1)
Is there 120 Volt AC across "H4-5" and "H6-5" on the control board?
Yes
(4)
Is there 120 Volt AC across "H4-4" to "H6-5" on the control board?
Yes
Replace the Door Lock Assembly.
No
(5)
Is there 120 Volt AC across "H6-1" and "H6-5" on the control board?
Yes
Replace the Control Board.
No
(2)
Is there voltage to the blu/blk input wire to the door switch on the lock assembly?
Yes
Replace the Door Lock Assembly.
No
(3)
Is there voltage at the input blk wire coming into the secondary door switch?
Yes
Replace the secondary door switch assembly.
No
Correct wiring to the secondary door switch.

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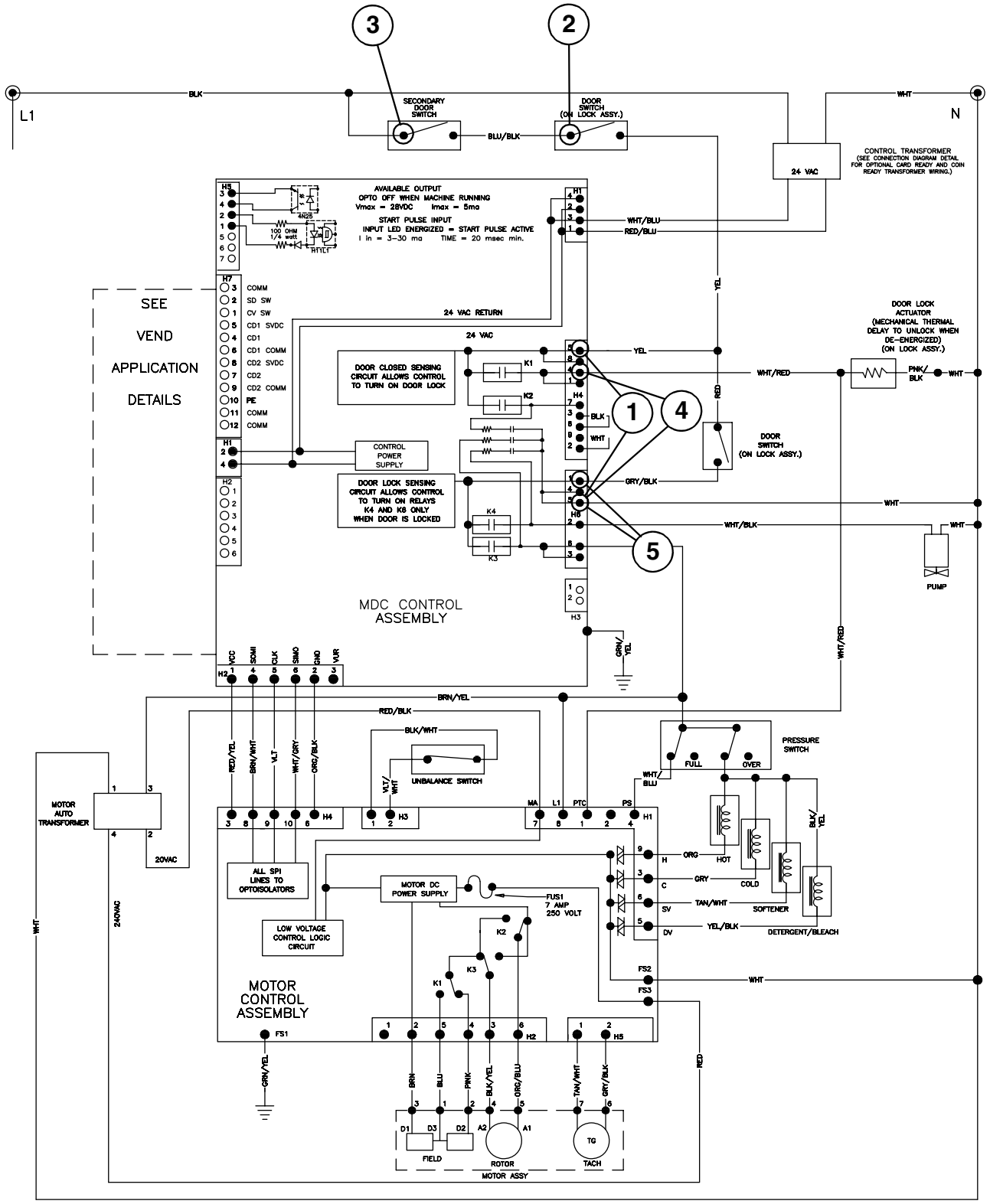
WASHER WILL NOT START – NO DOOR LOCK



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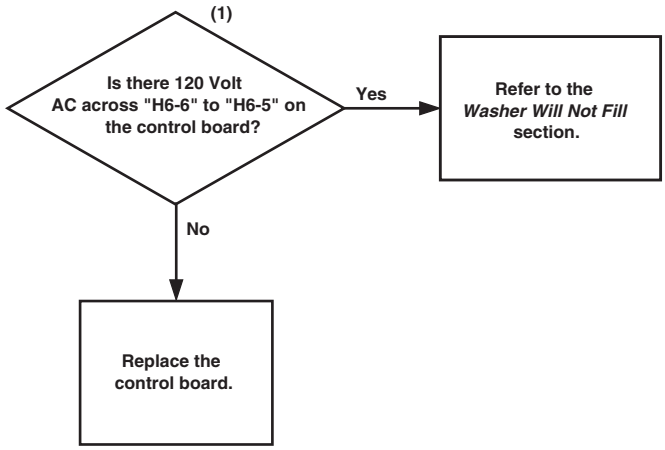
22. WASHER WILL NOT START – CONTROL ANALYSIS


(1)
Is there 120 Volt AC across "H6-6" to "H6-5" on the control board?
Yes
Refer to the *Washer Will Not Fill* section.
No
Replace the control board.

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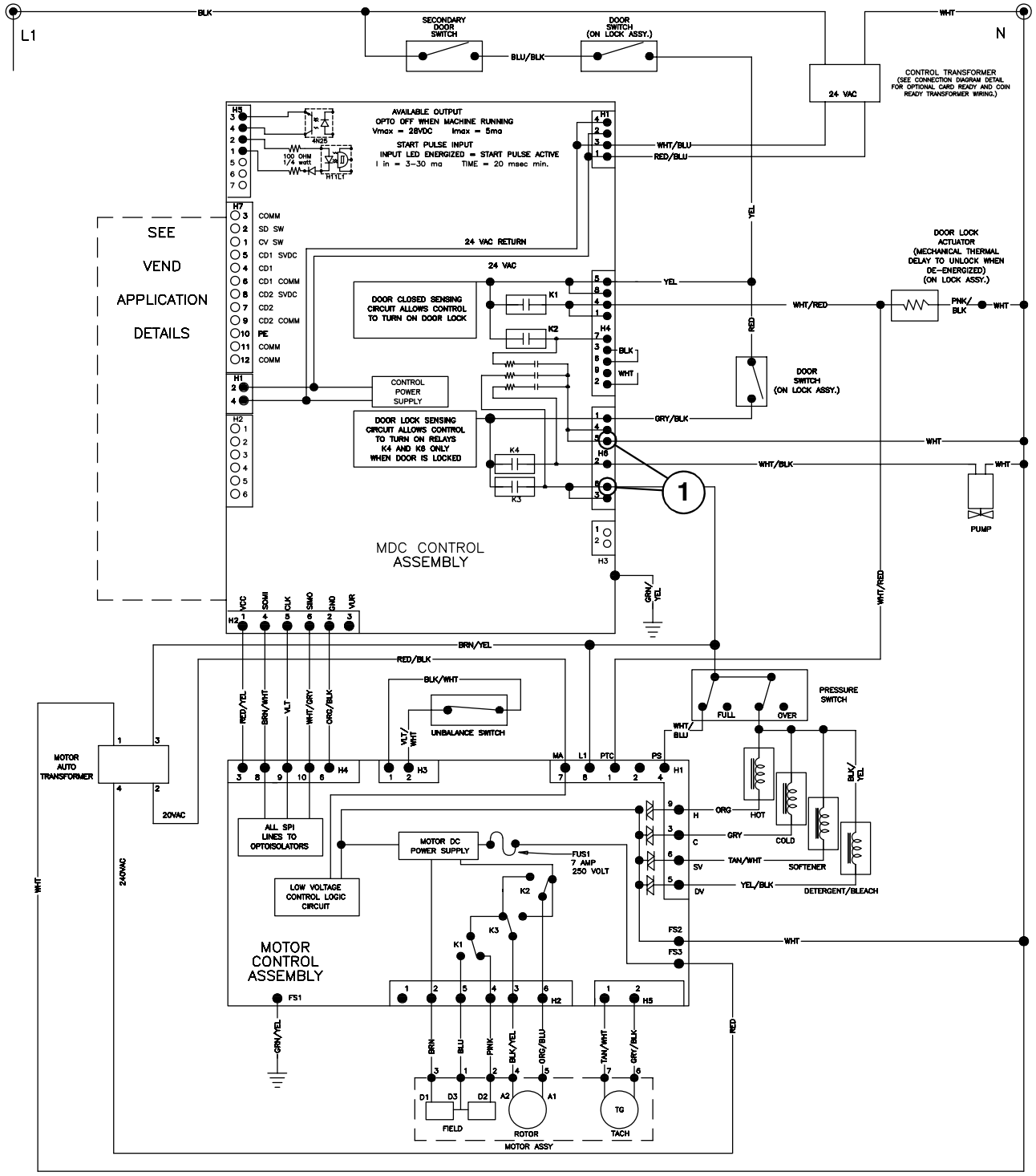
WASHER WILL NOT START – CONTROL ANALYSIS



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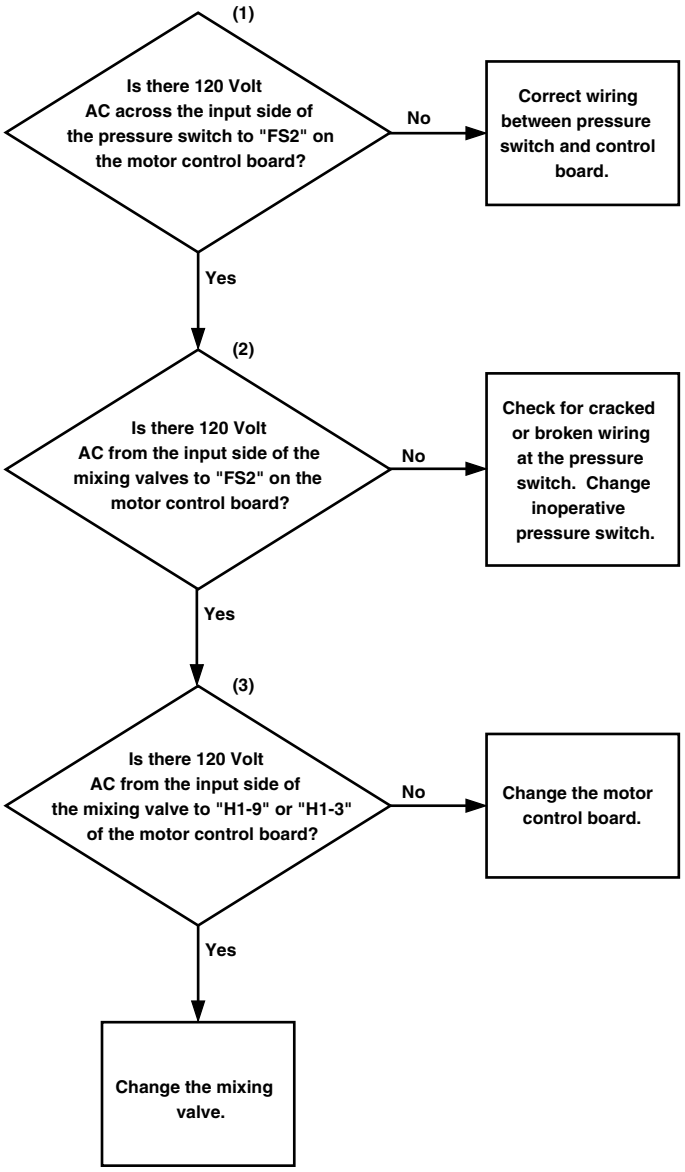
23. WASHER WILL NOT FILL


(1)
Is there 120 Volt AC across the input side of the pressure switch to "FS2" on the motor control board?
No
Correct wiring between pressure switch and control board.
Yes
(2)
Is there 120 Volt AC from the input side of the mixing valves to "FS2" on the motor control board?
No
Check for cracked or broken wiring at the pressure switch. Change inoperative pressure switch.
Yes
(3)
Is there 120 Volt AC from the input side of the mixing valve to "H1-9" or "H1-3" of the motor control board?
No
Change the motor control board.
Yes
Change the mixing valve.

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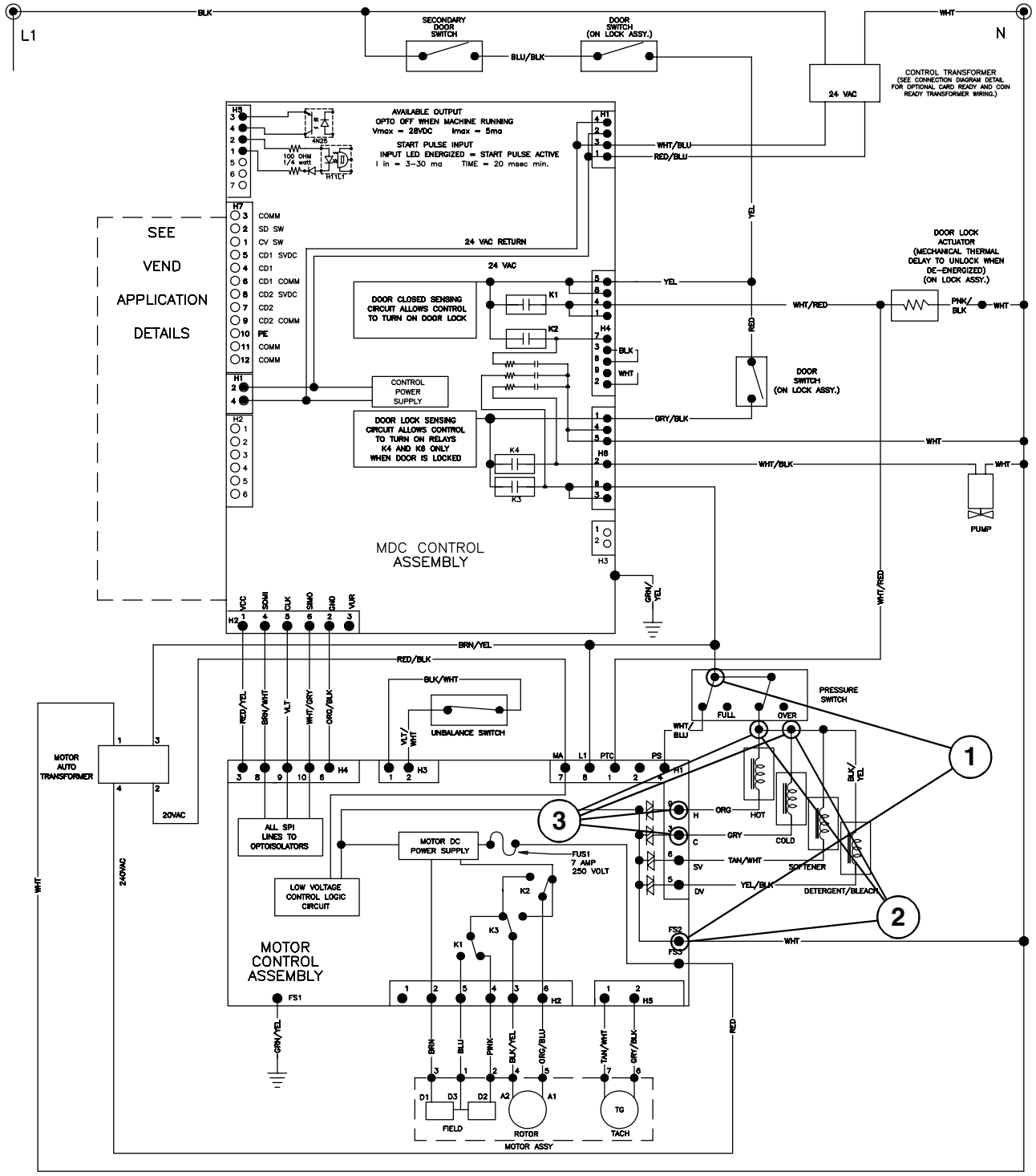
WASHER WILL NOT FILL



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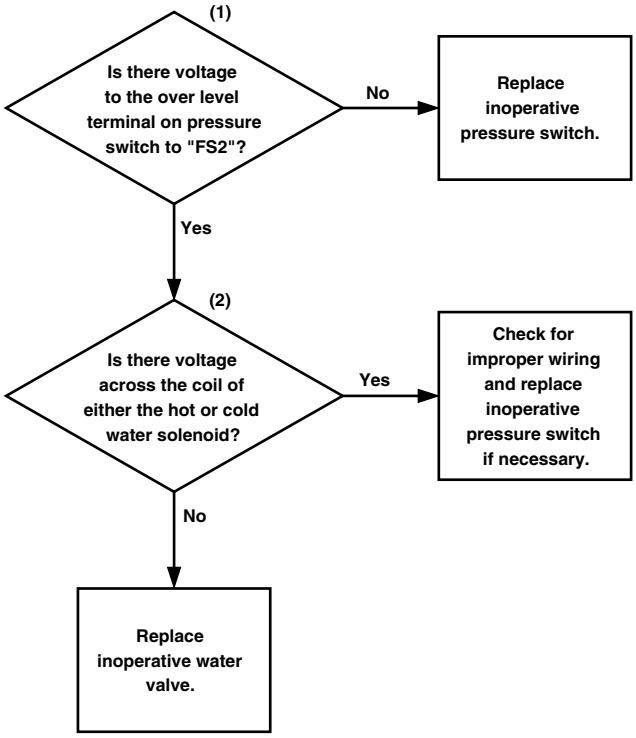
24. WASHER OVERFLOWS


(1)
Is there voltage to the over level terminal on pressure switch to "FS2"?
No
Replace inoperative pressure switch.
Yes
(2)
Is there voltage across the coil of either the hot or cold water solenoid?
Yes
Check for improper wiring and replace inoperative pressure switch if necessary.
No
Replace inoperative water valve.

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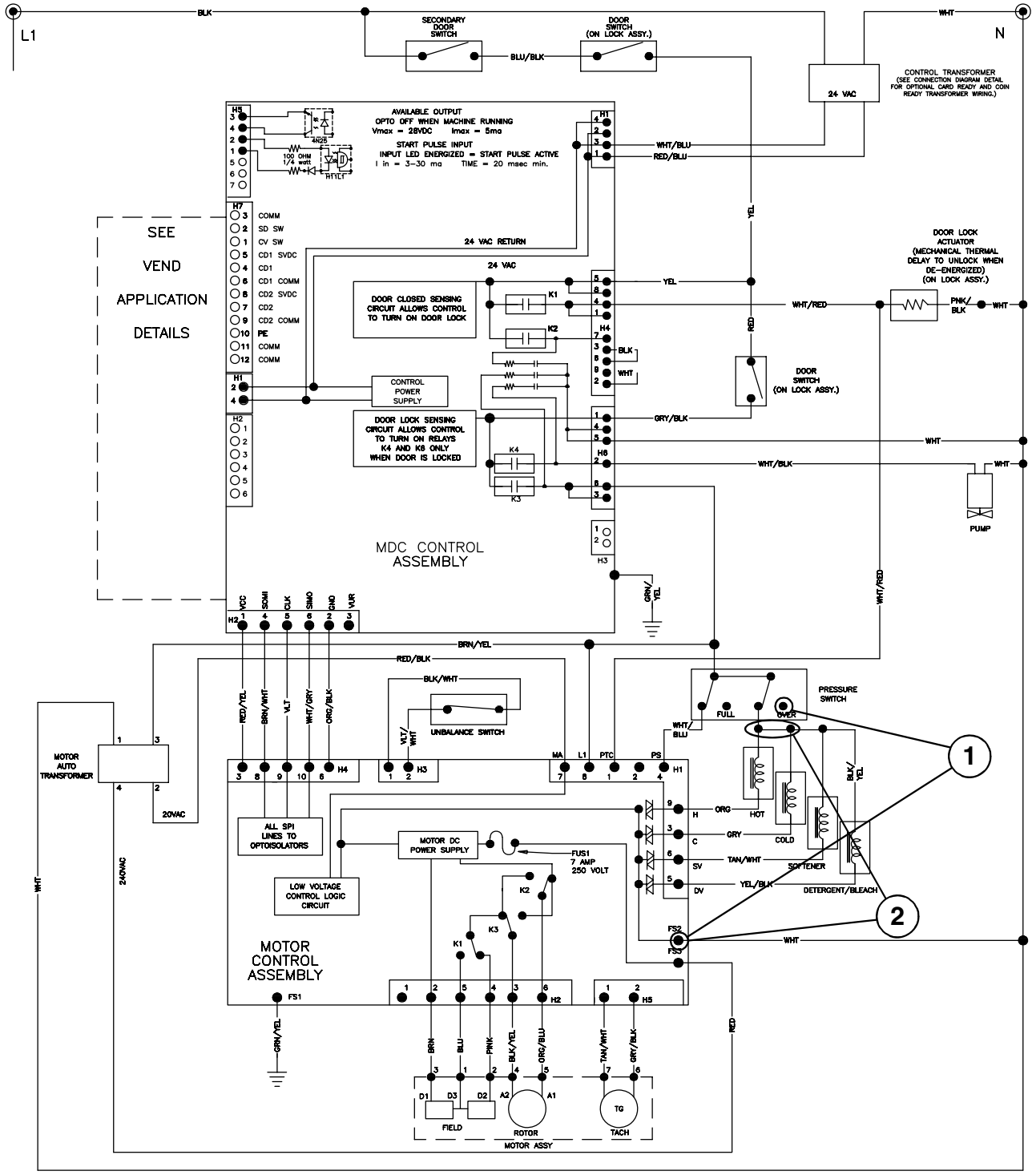
WASHER OVERFLOWS



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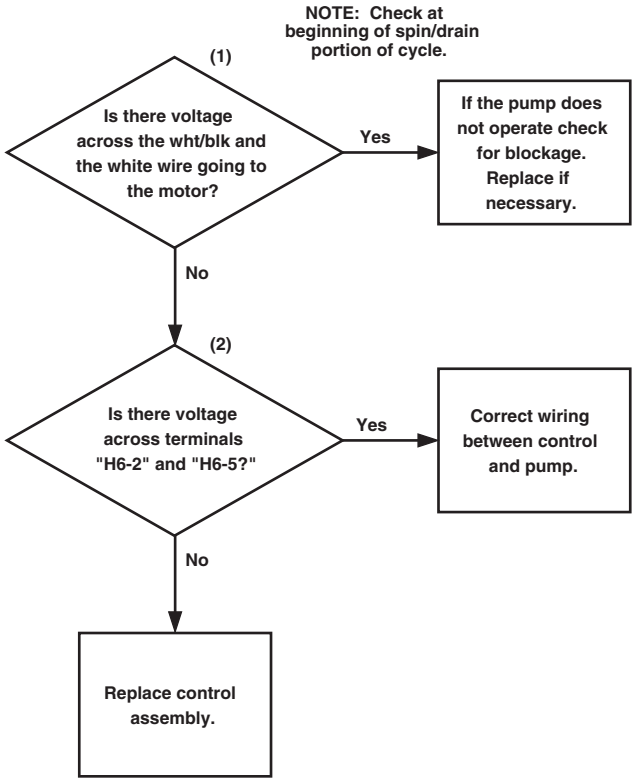
25. PUMP DOES NOT OPERATE


NOTE: Check at beginning of spin/drain portion of cycle.
(1)
Is there voltage across the wht/blk and the white wire going to the motor?
Yes
If the pump does not operate check for blockage. Replace if necessary.
No
(2)
Is there voltage across terminals "H6-2" and "H6-5?"
Yes
Correct wiring between control and pump.
No
Replace control assembly.

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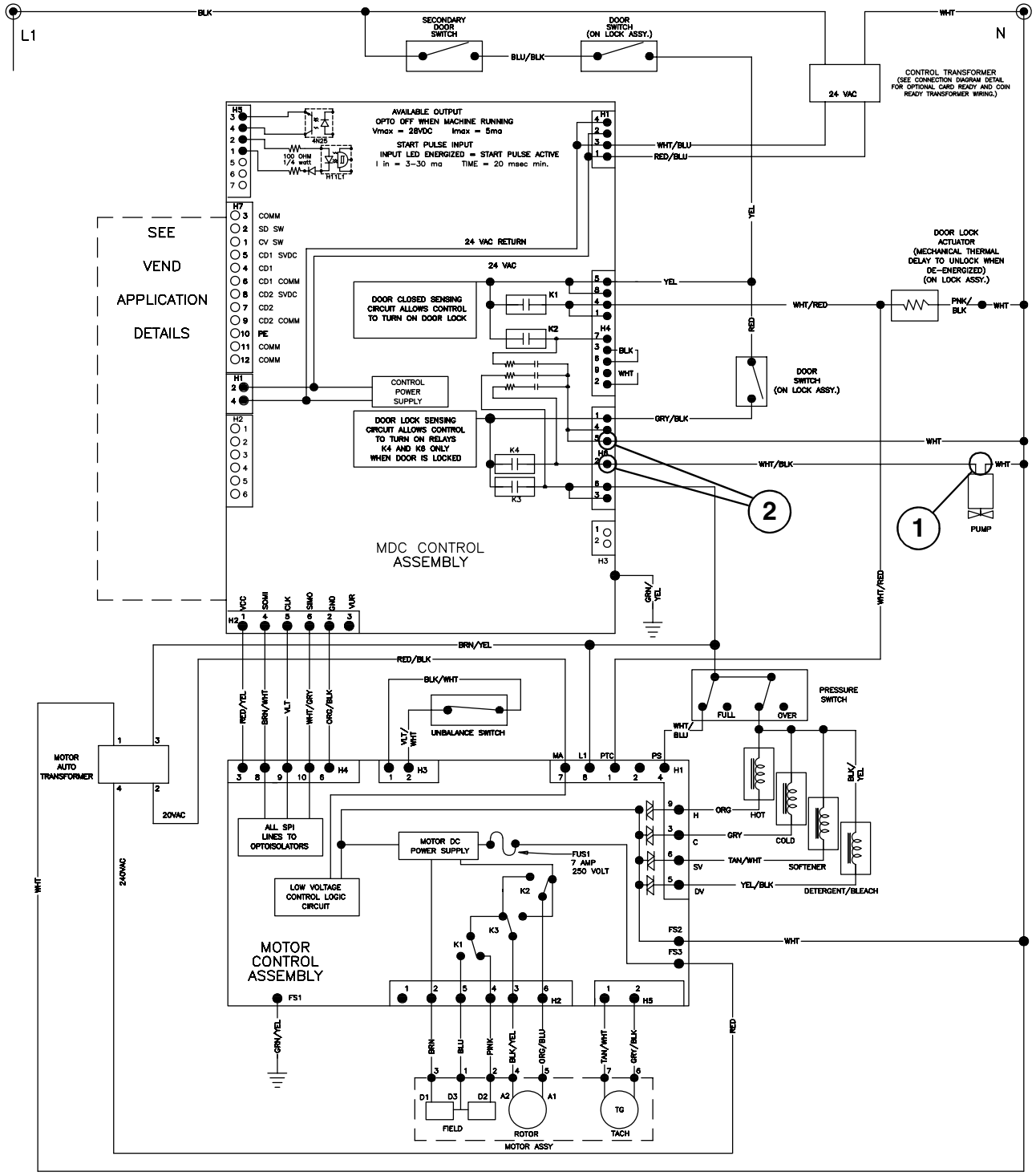
PUMP DOES NOT OPERATE



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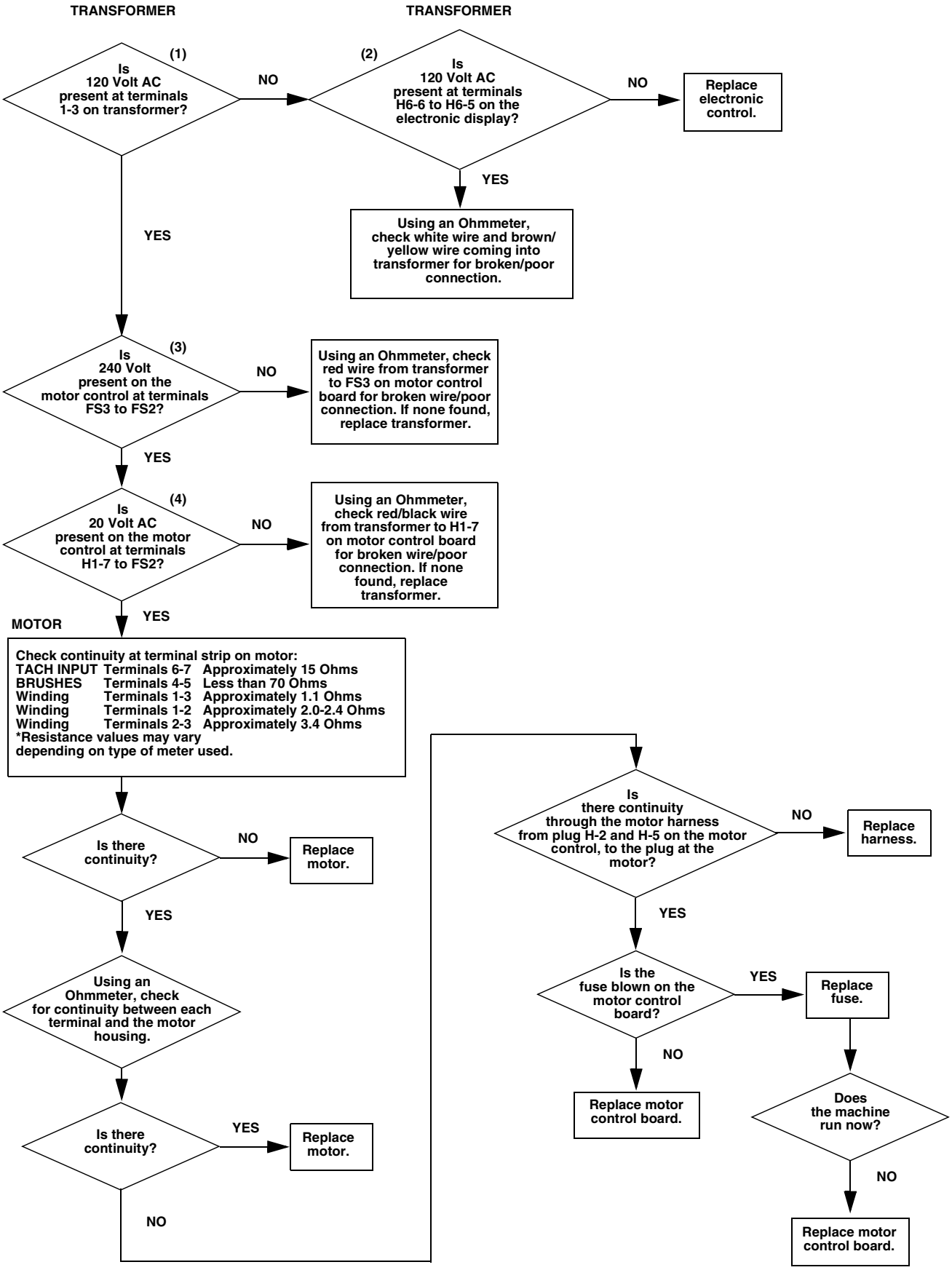
26. DOOR LOCKED, MOTOR DOES NOT RUN (E:df on display)


TRANSFORMER
TRANSFORMER
(1)
Is 120 Volt AC present at terminals 1-3 on transformer?
NO
(2)
Is 120 Volt AC present at terminals H6-6 to H6-5 on the electronic display?
NO
Replace electronic control.
YES
Using an Ohmmeter, check white wire and brown/ yellow wire coming into transformer for broken/poor connection.
YES
(3)
Is 240 Volt present on the motor control at terminals FS3 to FS2?
NO
Using an Ohmmeter, check red wire from transformer to FS3 on motor control board for broken wire/poor connection. If none found, replace transformer.
YES
(4)
Is 20 Volt AC present on the motor control at terminals H1-7 to FS2?
NO
Using an Ohmmeter, check red/black wire from transformer to H1-7 on motor control board for broken wire/poor connection. If none found, replace transformer.
YES
MOTOR
Check continuity at terminal strip on motor:
TACH INPUT Terminals 6-7 Approximately 15 Ohms
BRUSHES Terminals 4-5 Less than 70 Ohms
Winding Terminals 1-3 Approximately 1.1 Ohms
Winding Terminals 1-2 Approximately 2.0-2.4 Ohms
Winding Terminals 2-3 Approximately 3.4 Ohms
*Resistance values may vary depending on type of meter used.
Is there continuity?
NO
Replace motor.
YES
Using an Ohmmeter, check for continuity between each terminal and the motor housing.
Is there continuity?
YES
Replace motor.
NO
Is there continuity through the motor harness from plug H-2 and H-5 on the motor control, to the plug at the motor?
NO
Replace harness.
YES
Is the fuse blown on the motor control board?
YES
Replace fuse.
NO
Replace motor control board.
Does the machine run now?
NO
Replace motor control board.

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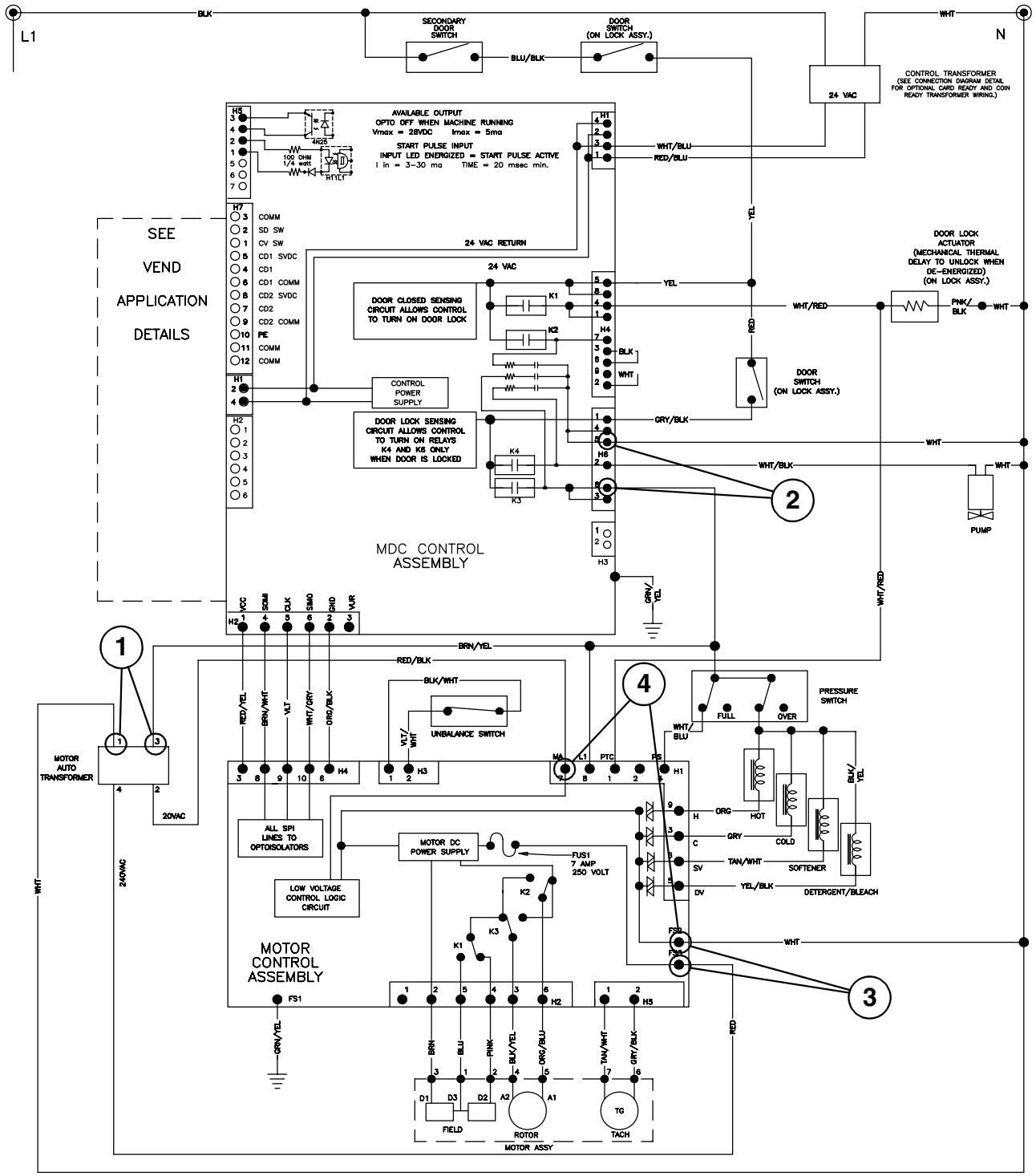
DOOR LOCKED, MOTOR DOES NOT RUN (E:df on display)



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Troubleshooting

NetMaster Models – Washer Control

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

27. ERROR CODE LISTING

Following is a list of possible error codes. Errors beginning with "EI" refer to NetMaster Infra-red communication errors. Errors beginning with "EC" refer to NetMaster card reader errors. All other errors refer to electronic control errors.

Display	Description	Cause/Corrective Action
EI:01	Transmission Failure	Communication failure. Re-aim Micro-Wand and try again.
EI:02	Device Timeout	Communication failure. Re-aim Micro-Wand and try again.
EI:03	Invalid Command Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:04	Expecting Upload Request	Communication failure. Re-aim Micro-Wand and try again.
EI:05	Invalid or Out-of-Range Data	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:06	Invalid Data Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:07	Error Writing to RTC	Control failure. Replace control.
EI:08	Error Writing to EEPROM	Control failure. Replace control.
EI:09	CRC-16 Error	Communication failure. Re-aim Micro-Wand and try again.
EI:0A	Invalid Machine Type	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:0F	Invalid Wakeup or Infra-red Disabled	Communication failure or infra-red is disabled. Manually enable infra-red on control or re-aim Micro-Wand and try again.
EC:00	General Communication Error	Communication failure. Try card again.
EC:02	Timeout Error	Communication failure. Try card again.
EC:03	Invalid Command Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EC:05	Invalid or Out-of-Range Data	Incorrect machine type. Before downloading, ensure data is for current machine type.

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Display	Description	Cause/Corrective Action
EC:06	Invalid Data Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EC:09	Corrupted Data Error	Communication error. Try card again.
EC:0A	Invalid Machine Type	Incorrect machine type. Before downloading, ensure data is for current machine type.
EC:19	No Card Reader Communication	Communication failure. Power down, power up and try again. If error persists, replace control or card reader.
EC:20	Unreadable Card	Faulty card or dirty contact. Clean chip on card or card reader contacts. Try card again. If error persists, card may be faulty.
EC:21	Security ID Mismatch	Incorrect card. Use card with correct security code.
EC:22	Site Code Mismatch	Incorrect card. Use card with correct site code.
EC:23	Card Maximum Value Exceeded	Value on card over max. Use a card which does not exceed maximum value.
EC:24	Insufficient Memory on Card	Card memory is full. Download card contents to PC and clear card for re-use.
EC:25	Card Reader Malfunction	Faulty card reader. Replace card reader.
EC:26	Card Write Error	Try card again. If error persists, card may be faulty.
EC:27	Diagnostic Test Card Write Failure	Faulty card reader. Replace card reader.
EC:28	Diagnostic Test Card Read Failure	Faulty card reader. Replace card reader.
EC:29	Diagnostic Test Memory Test Failure	Faulty card reader. Replace card reader.
EC:2A	Diagnostic Test Card Interface Failure	Faulty card reader. Replace card reader.
EC:2b	Diagnostic Test Flash Checksum Failure	Faulty card reader. Replace card reader.
EC:2C	Biberon or Non-biberon Device Failure	Faulty card reader. Replace card reader.
EC:2d	Firmware Update Failed, S/W (Software) Intact	Firmware load failed. Replace card reader.
EC:2E	Firmware Update Failed, S/W Not Intact	Faulty firmware in reader. Replace card reader.
EC:2F	Firmware Updated, S/W Not Intact	Faulty firmware in reader. Replace card reader.
EC:30	Timeout Error	Replace card reader.
EC:31	Hotlisted Card Inserted Into Reader	Card hotlisted. Control will destroy card.
EC:50	Loyalty Purse Read Error	Try card again. If error persists, card may be faulty.
EC:56	Loyalty Purse Write Error	Try card again. If error persists, card may be faulty.
Right most DP (decimal point) Lit	Network Communication Error	Communication problem. Wait for 1.5 minutes for error to clear. If error doesn't clear, power-down and power-up the machine. If error persists, replace control or network board.
Alrm	Break-in Alarm Error	Service the door or coin vault switches.
OFF	Break-in Alarm Shutdown Error	Service the door or coin vault switches.

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Display	Description	Cause/Corrective Action
E:FL	Fill Error	Pressure switch fails to open in 30 minutes in any fill agitate cycle.
E:SP	SPI Communications Error	Master control cannot communicate with motor control. Master control will try to reset the motor control by powering it down. The error will display after three reset attempt failures. Caused by transformer unplugged or wiring to motor control incorrect.
E:dL	Door Lock Error	Door does not lock within 15 seconds of closing or 3 minutes after cycle completion. Open and reclose door.
E:do	Door Opened During A Running Cycle	Control detects door open and door locked inputs high. Caused by pulling on door while locked or about to lock. Correct inoperative door locking system.
E:Ub	Unbalance Error	Unable to balance load. Redistribute load and run cycle.
E:dF	Drive Failure	Motor unplugged, motor failure, tachometer circuit open or drum locked up. Unpower machine to reset.
door	Door Open Indicator	Door is not closed during an active cycle. If door is closed, check for improper wiring or faulty door switches.
Err	Coin Error	Invalid coin pulse or inoperative coin sensor. Check coin drop area and remove obstructions. If error persists, tampering may have occured. Evaluate security procedures.

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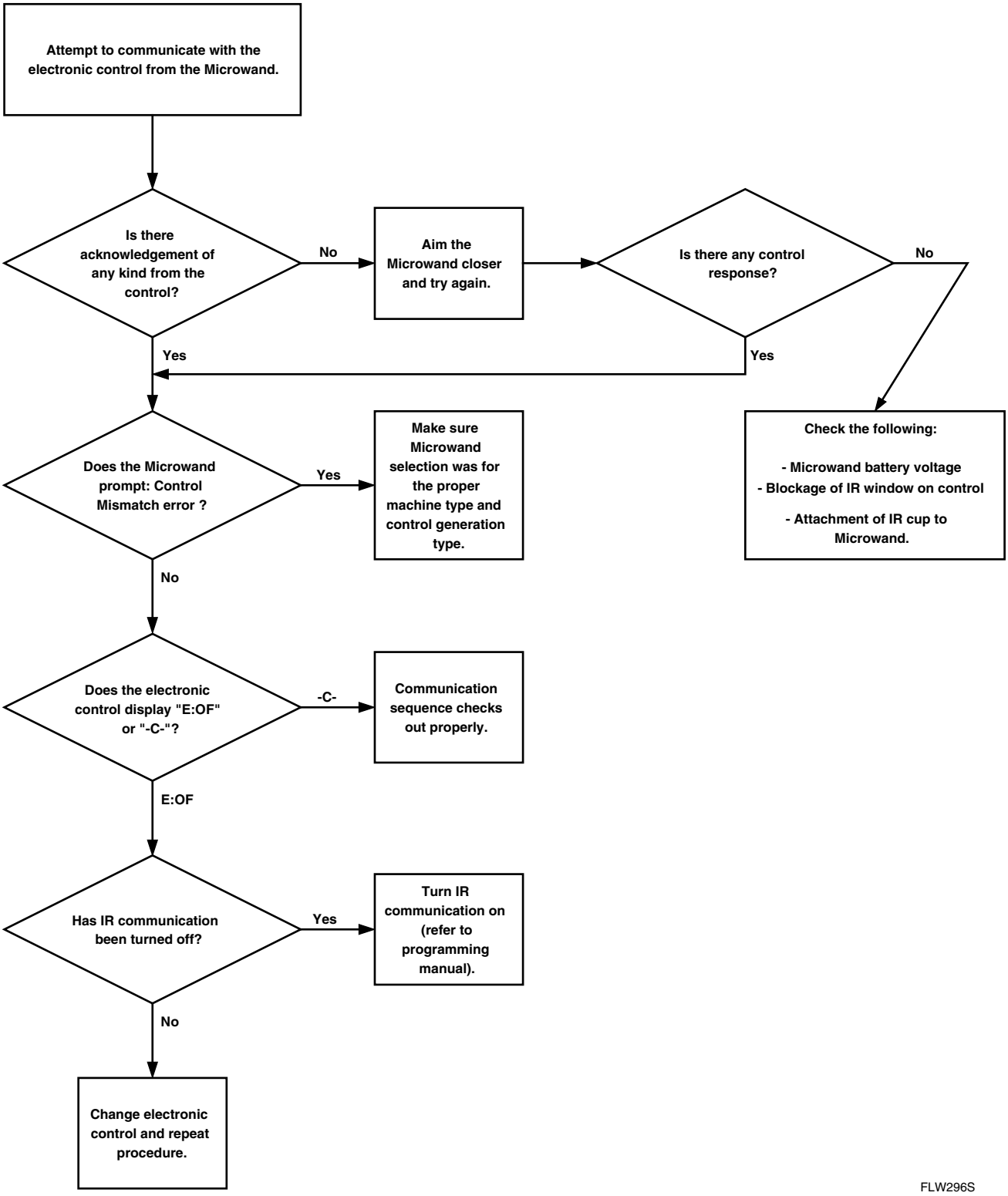
28. MICROWAND DOES NOT COMMUNICATE WITH CONTROL


Attempt to communicate with the electronic control from the Microwand.
Is there acknowledgement of any kind from the control?
No
Aim the Microwand closer and try again.
Is there any control response?
No
Yes
Yes
Does the Microwand prompt: Control Mismatch error ?
Yes
Make sure Microwand selection was for the proper machine type and control generation type.
Check the following:
- Microwand battery voltage
- Blockage of IR window on control
- Attachment of IR cup to Microwand.
No
Does the electronic control display "E:OF" or "-C-"?
-C-
Communication sequence checks out properly.
E:OF
Has IR communication been turned off?
Yes
Turn IR communication on (refer to programming manual).
No
Change electronic control and repeat procedure.
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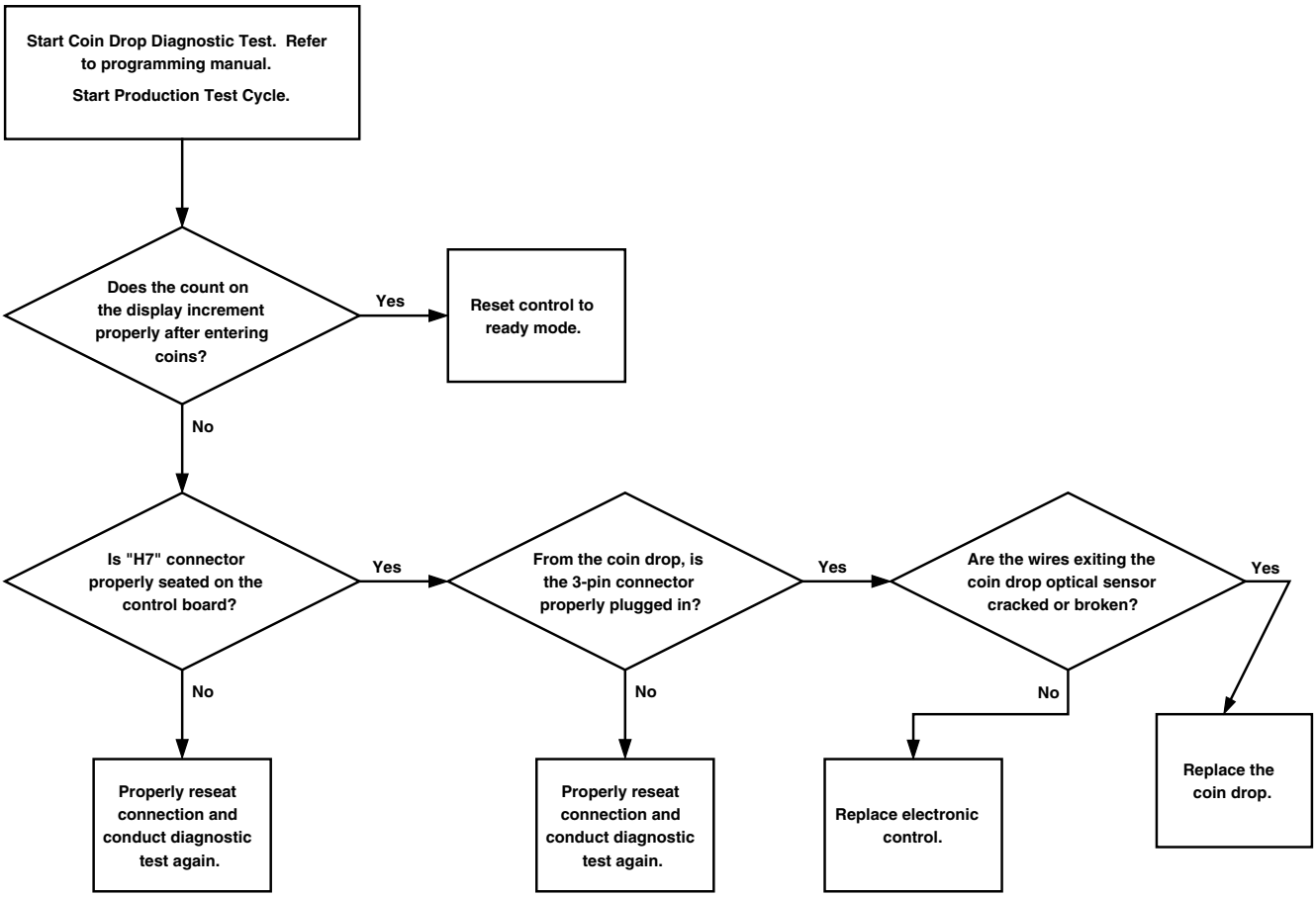
29. COINS IGNORED WHEN ENTERED


Start Coin Drop Diagnostic Test. Refer to programming manual.
Start Production Test Cycle.
Does the count on the display increment properly after entering coins?
Yes
Reset control to ready mode.
No
Is "H7" connector properly seated on the control board?
Yes
From the coin drop, is the 3-pin connector properly plugged in?
Yes
Are the wires exiting the coin drop optical sensor cracked or broken?
Yes
No
Properly reseat connection and conduct diagnostic test again.
No
Properly reseat connection and conduct diagnostic test again.
No
Replace electronic control.
Replace the coin drop.

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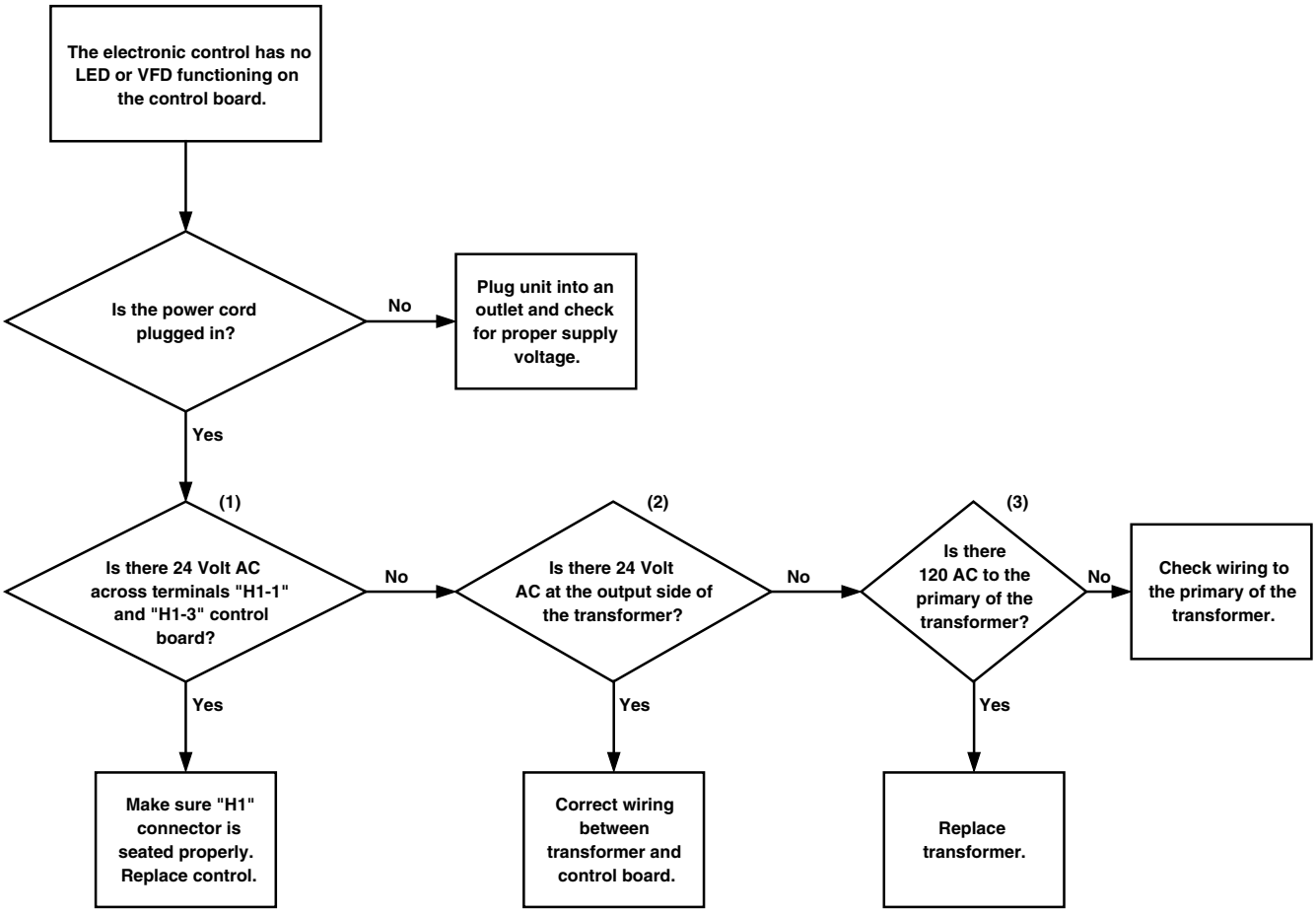
30. NO VISIBLE DISPLAY ON CONTROL


The electronic control has no LED or VFD functioning on the control board.
Is the power cord plugged in?
No
Plug unit into an outlet and check for proper supply voltage.
Yes
(1)
Is there 24 Volt AC across terminals "H1-1" and "H1-3" control board?
No
(2)
Is there 24 Volt AC at the output side of the transformer?
No
(3)
Is there 120 AC to the primary of the transformer?
No
Check wiring to the primary of the transformer.
Yes
Make sure "H1" connector is seated properly. Replace control.
Yes
Correct wiring between transformer and control board.
Yes
Replace transformer.

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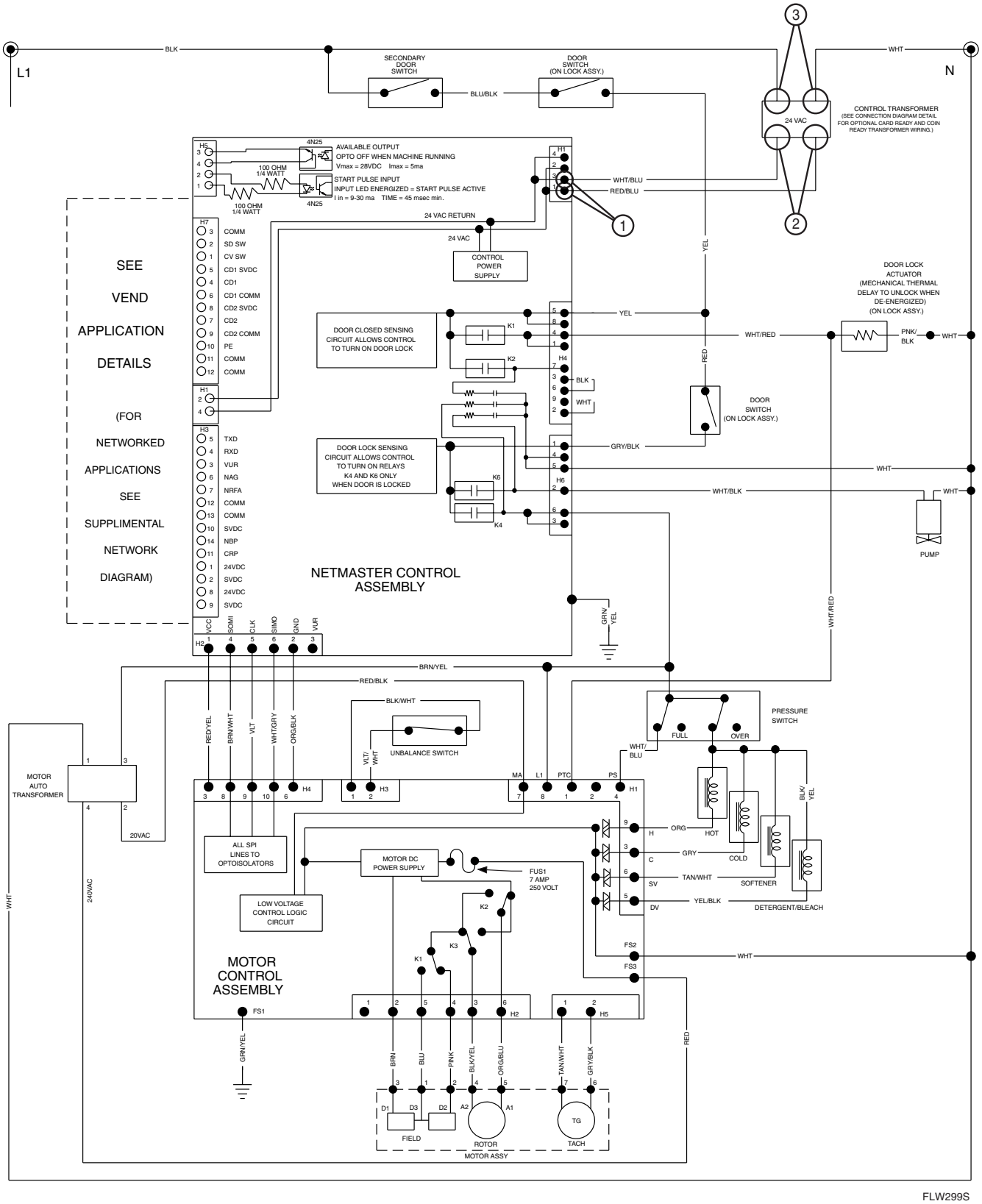
NO VISIBLE DISPLAY ON CONTROL



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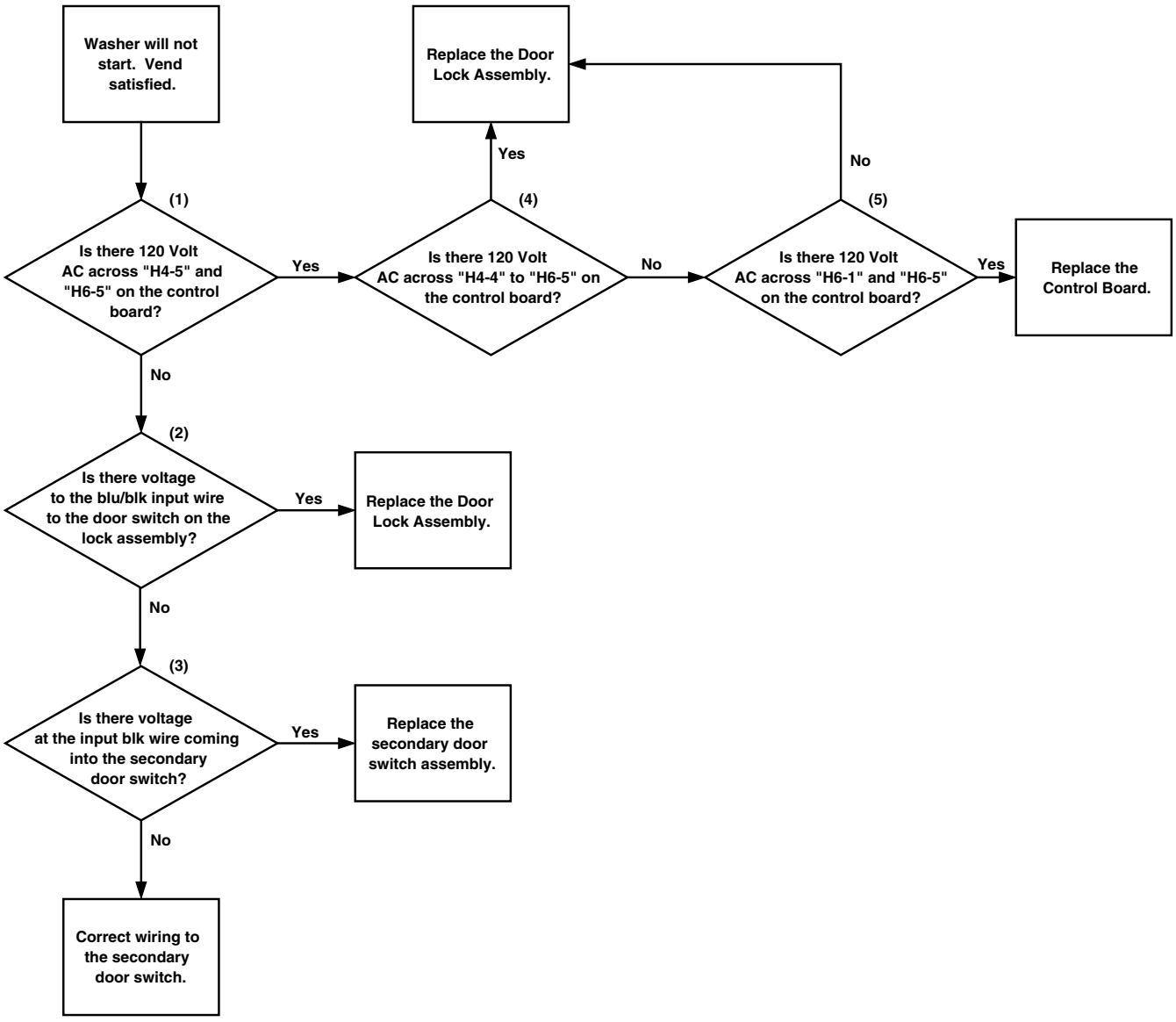
31. WASHER WILL NOT START – NO DOOR LOCK


Washer will not start. Vend satisfied.
(1)
Is there 120 Volt AC across "H4-5" and "H6-5" on the control board?
Yes
(4)
Is there 120 Volt AC across "H4-4" to "H6-5" on the control board?
Yes
Replace the Door Lock Assembly.
No
(5)
Is there 120 Volt AC across "H6-1" and "H6-5" on the control board?
Yes
Replace the Control Board.
No
(2)
Is there voltage to the blu/blk input wire to the door switch on the lock assembly?
Yes
Replace the Door Lock Assembly.
No
(3)
Is there voltage at the input blk wire coming into the secondary door switch?
Yes
Replace the secondary door switch assembly.
No
Correct wiring to the secondary door switch.

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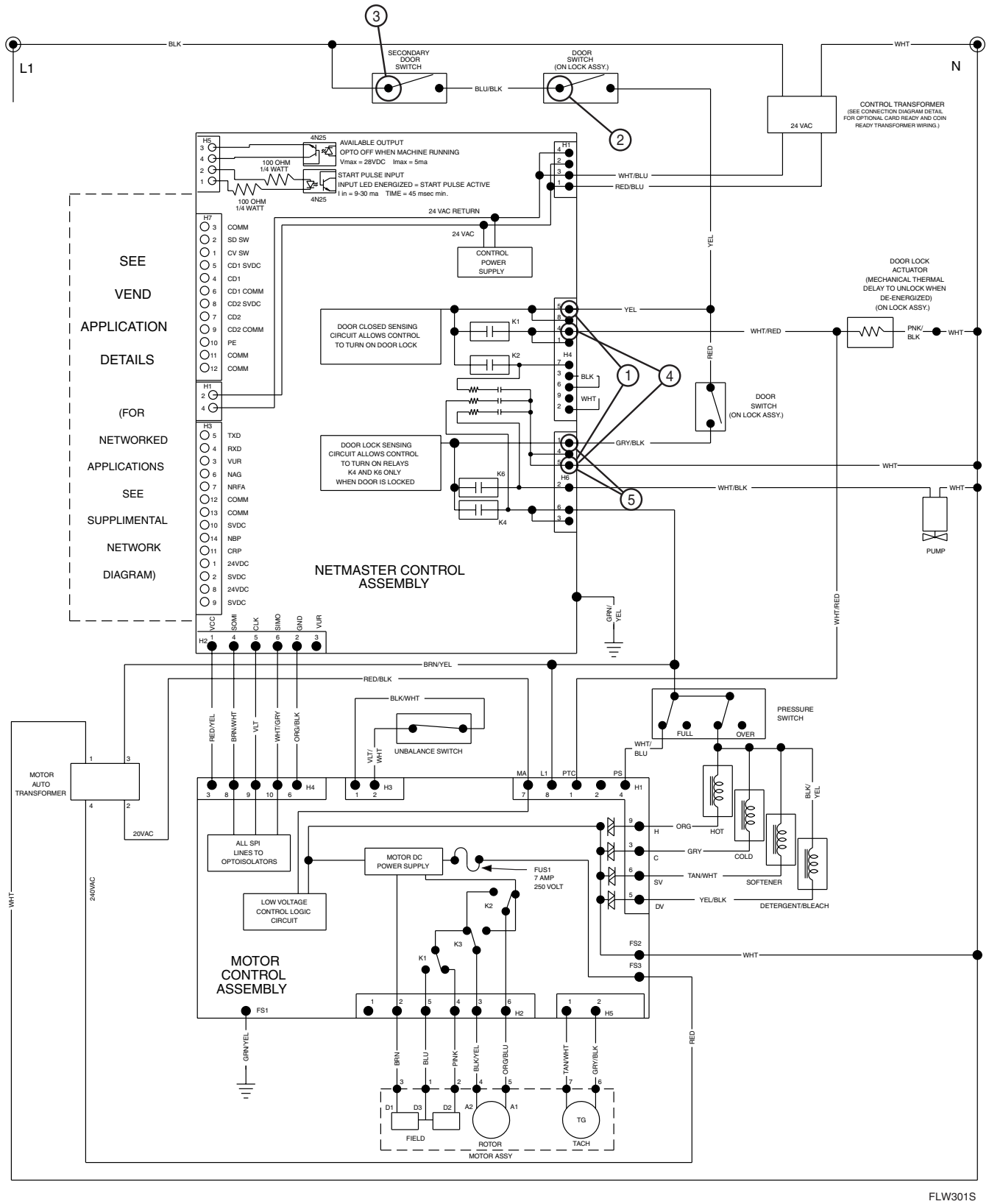
WASHER WILL NOT START – NO DOOR LOCK



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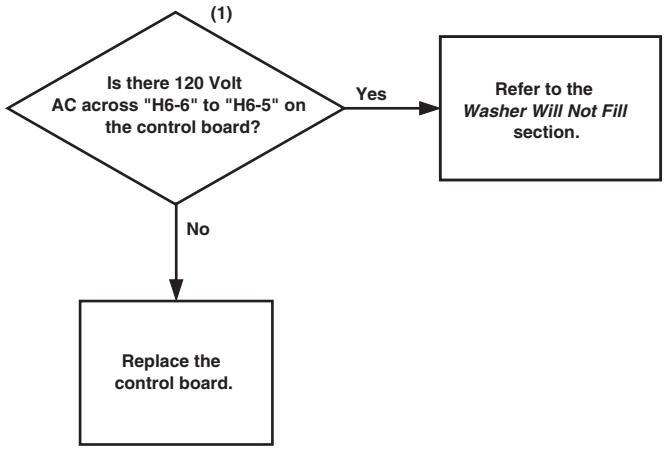
32. WASHER WILL NOT START – CONTROL ANALYSIS


(1)
Is there 120 Volt AC across "H6-6" to "H6-5" on the control board?
Yes
Refer to the *Washer Will Not Fill* section.
No
Replace the control board.

FLW302S

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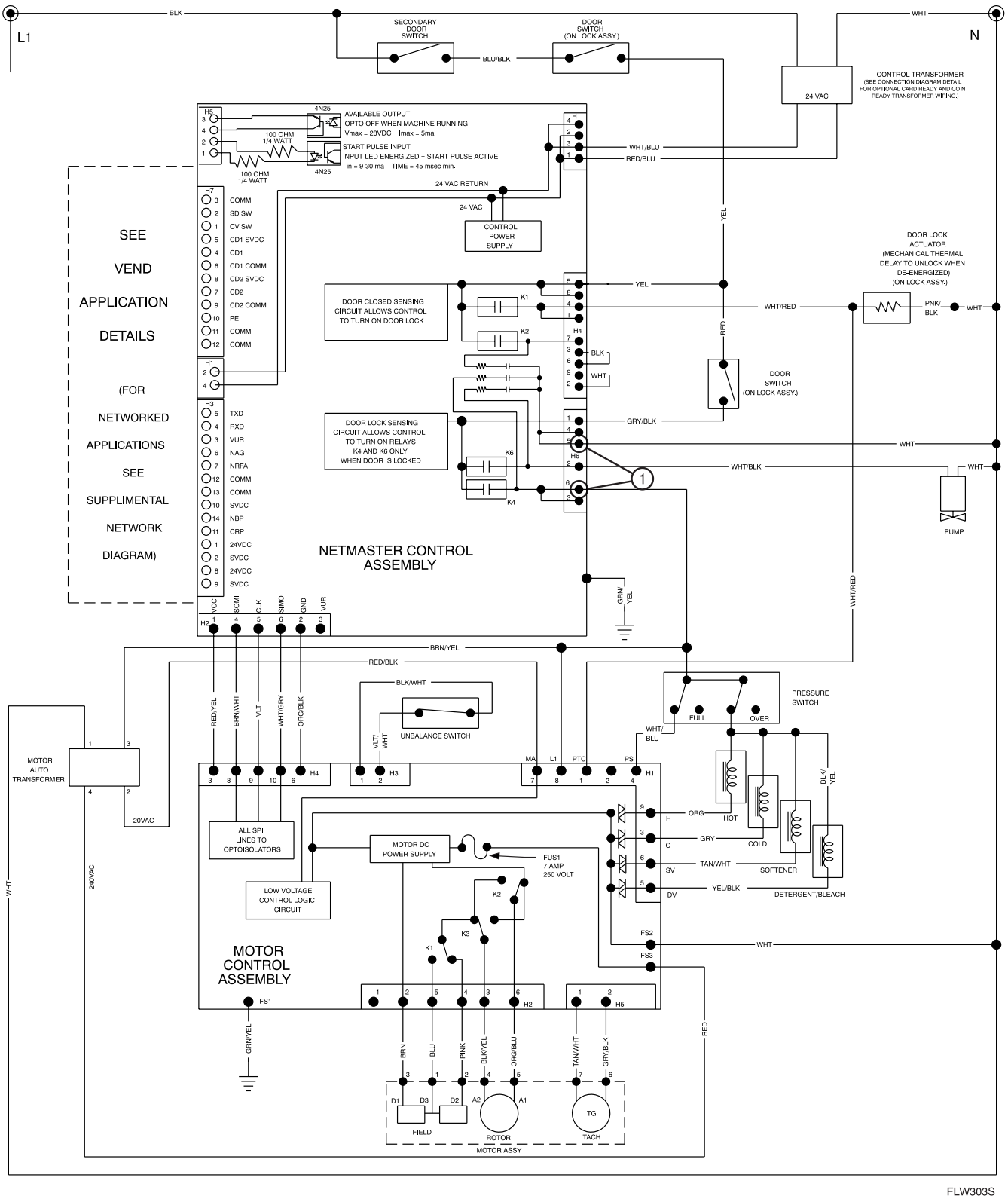
WASHER WILL NOT START – CONTROL ANALYSIS



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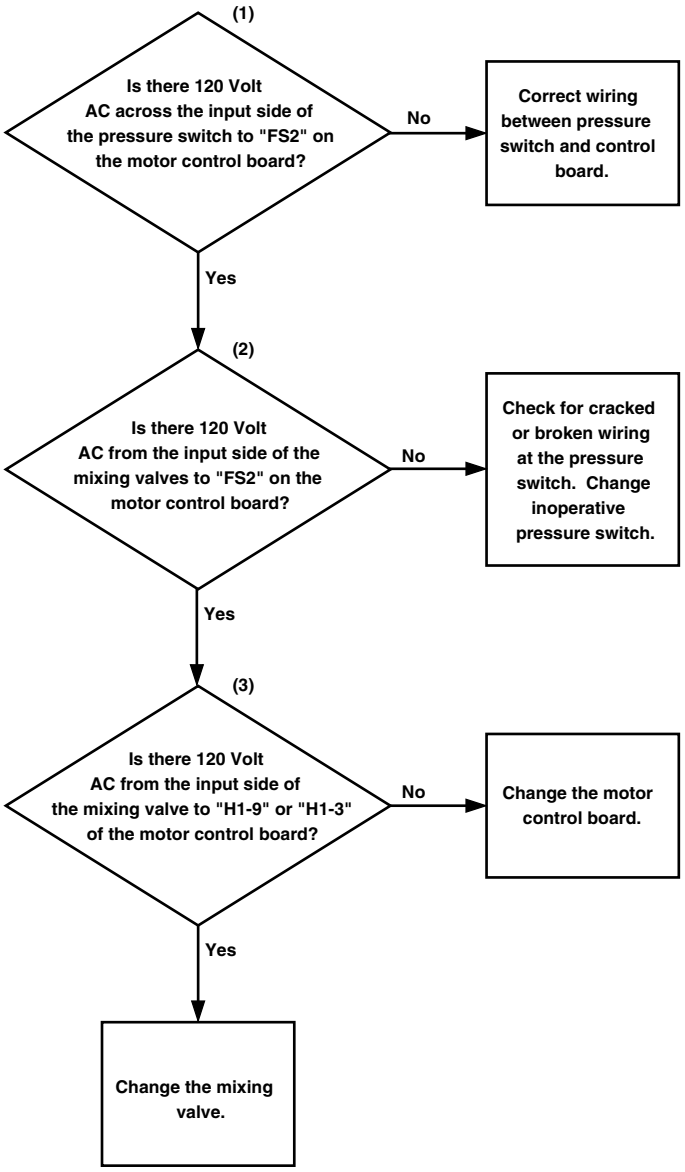
33. WASHER WILL NOT FILL


(1)
Is there 120 Volt AC across the input side of the pressure switch to "FS2" on the motor control board?
No
Correct wiring between pressure switch and control board.
Yes
(2)
Is there 120 Volt AC from the input side of the mixing valves to "FS2" on the motor control board?
No
Check for cracked or broken wiring at the pressure switch. Change inoperative pressure switch.
Yes
(3)
Is there 120 Volt AC from the input side of the mixing valve to "H1-9" or "H1-3" of the motor control board?
No
Change the motor control board.
Yes
Change the mixing valve.

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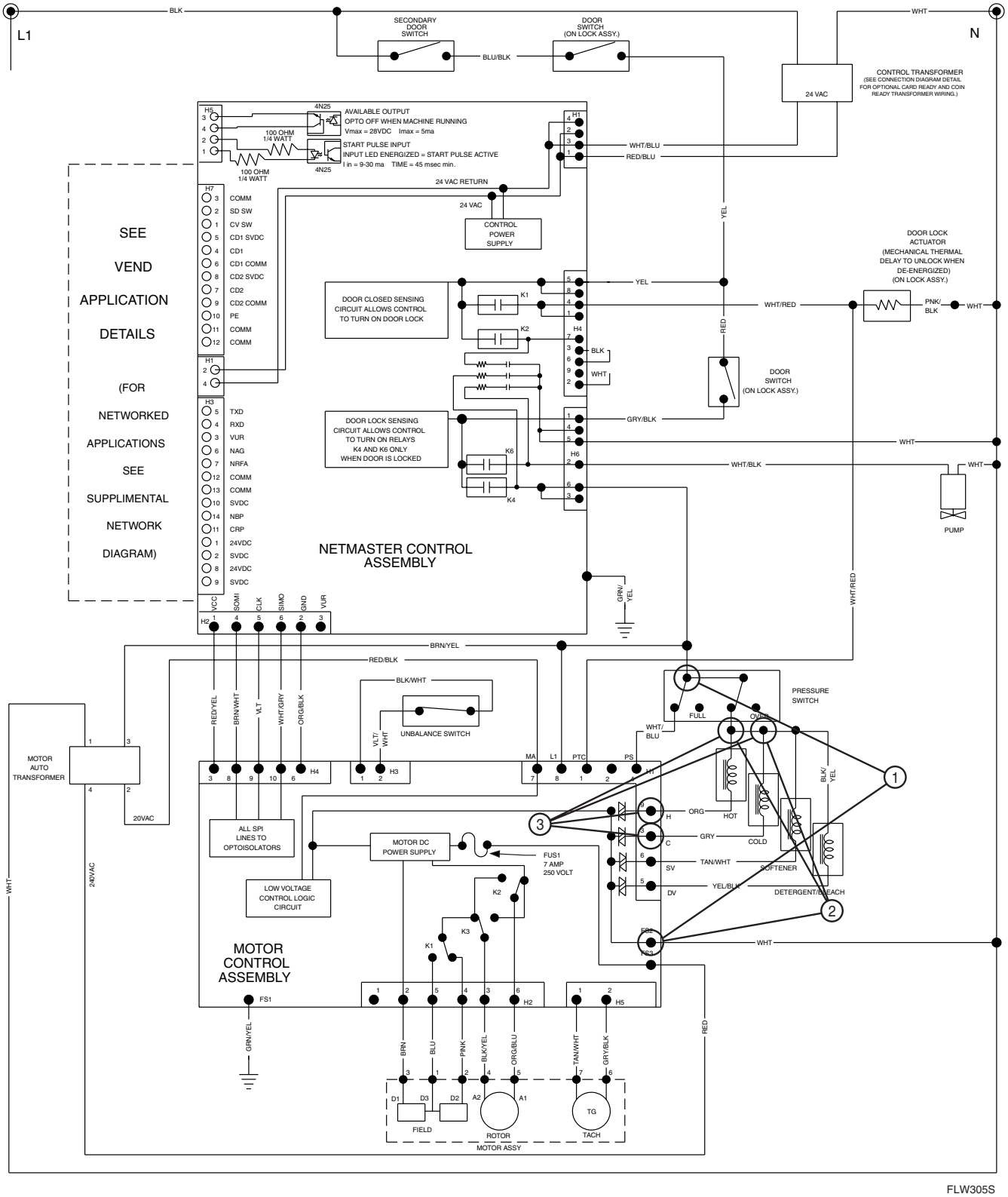
WASHER WILL NOT FILL



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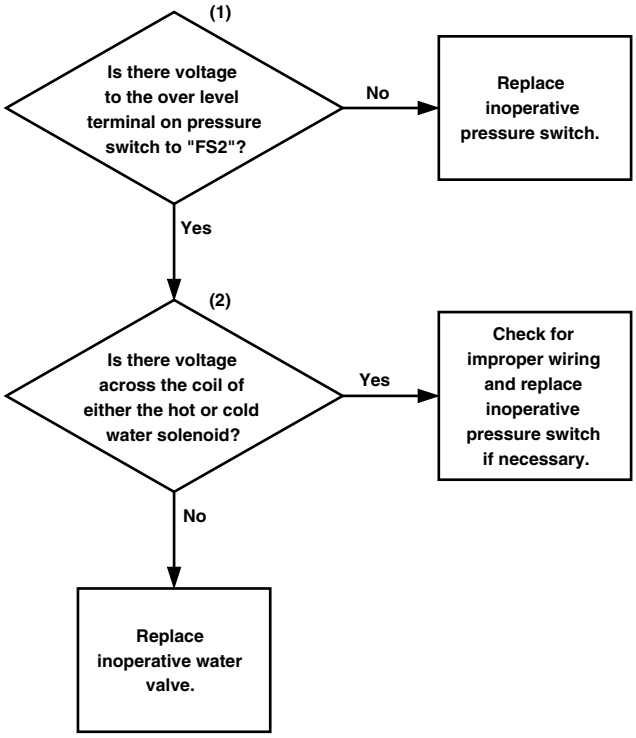
34. WASHER OVERFLOWS


(1)
Is there voltage to the over level terminal on pressure switch to "FS2"?
No
Replace inoperative pressure switch.
Yes
(2)
Is there voltage across the coil of either the hot or cold water solenoid?
Yes
Check for improper wiring and replace inoperative pressure switch if necessary.
No
Replace inoperative water valve.

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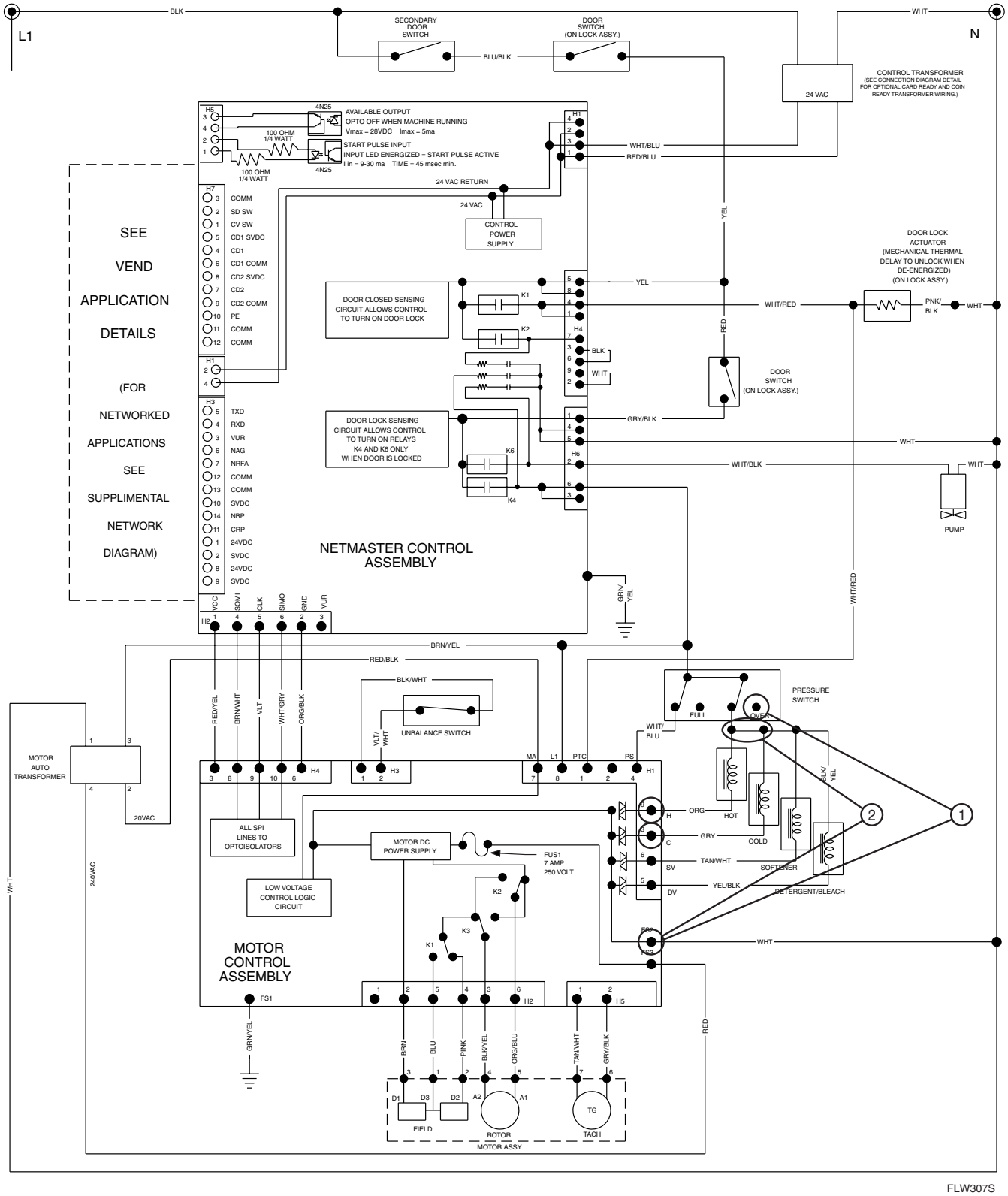
WASHER OVERFLOWS



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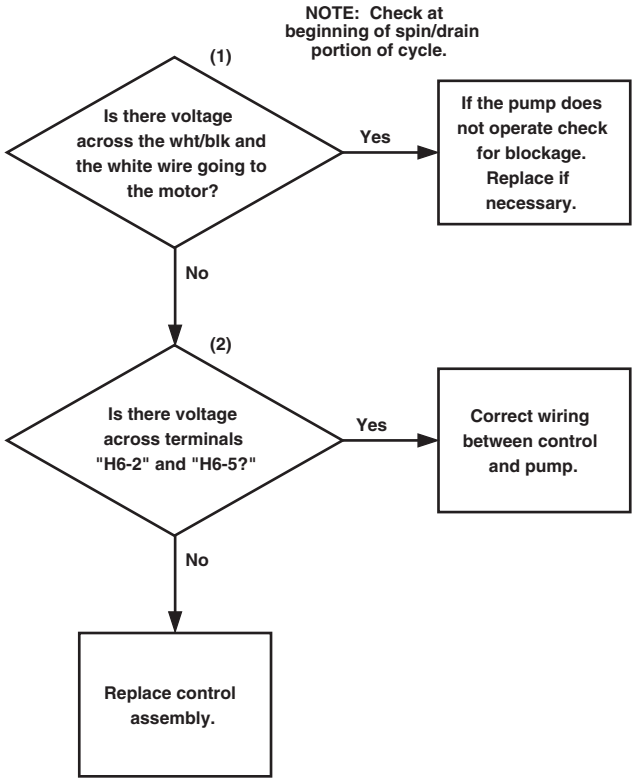
35. PUMP DOES NOT OPERATE


NOTE: Check at beginning of spin/drain portion of cycle.
(1)
Is there voltage across the wht/blk and the white wire going to the motor?
Yes
If the pump does not operate check for blockage. Replace if necessary.
No
(2)
Is there voltage across terminals "H6-2" and "H6-5?"
Yes
Correct wiring between control and pump.
No
Replace control assembly.

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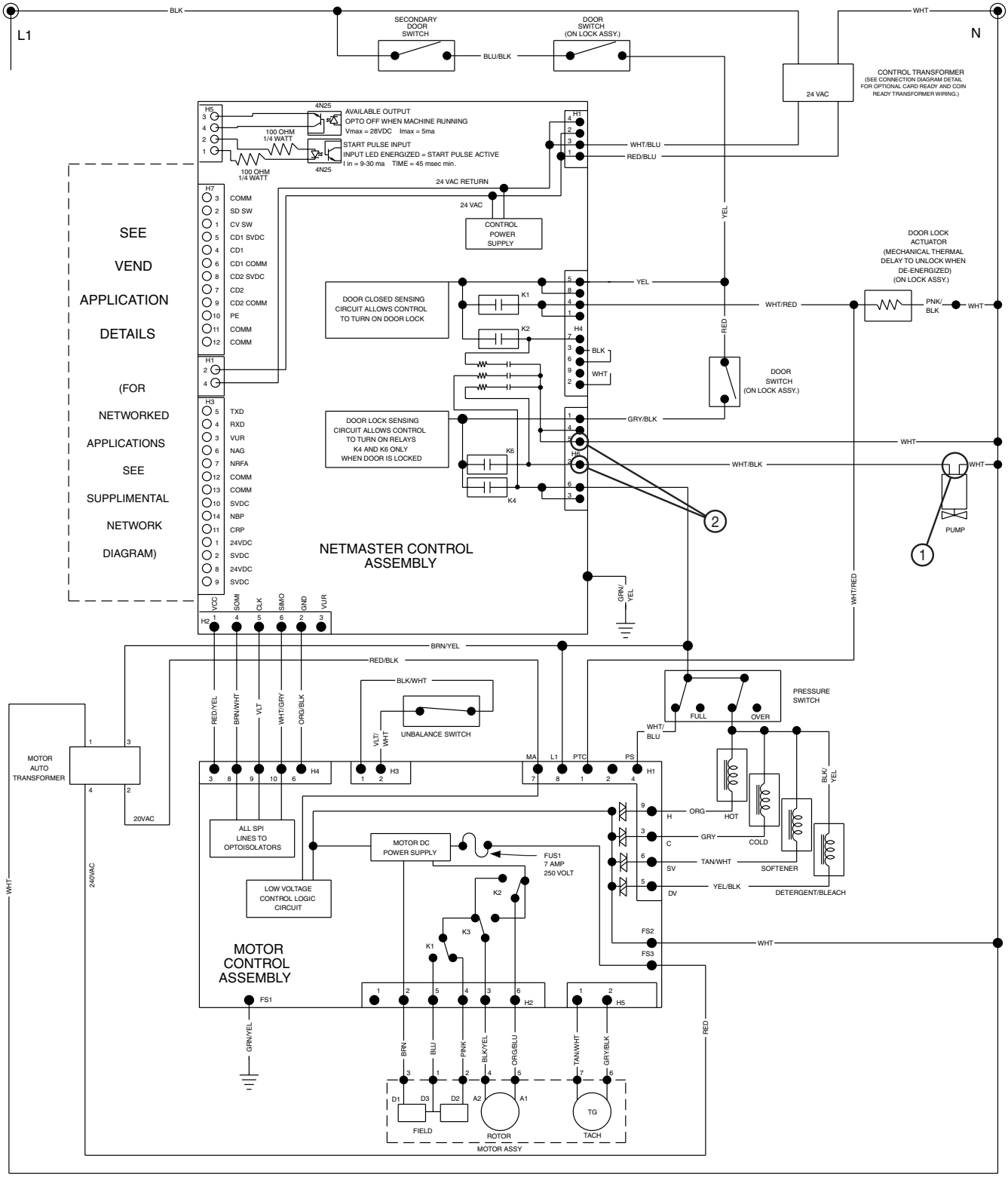
PUMP DOES NOT OPERATE



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Notes

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Troubleshooting

Dryer

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

IMPORTANT: Refer to wiring diagram for aid in testing dryer components.

36. MOTOR DOES NOT RUN

POSSIBLE CAUSE	TO CORRECT
Electrical power off, fuse blown, or power cord not plugged in.	• Check laundry room for blown or loose fuse(s), or open circuit breaker(s). The dryer itself does not have an electrical fuse. • Check both fuses for electric models.
Loading door not closed.	• Close door.
Inoperative door switch.	• Test switch and replace if inoperative.
Timer improperly set.	• Reset timer, or try another cycle.
Inoperative timer.	• Test timer and replace if inoperative.
Motor starting functions inoperative. Does not start, or motor just hums.	• Refer to *Paragraph 138* to check start switch and start windings.
Motor is dead, will not run.	• Refer to *Paragraph 138* to check start switch, start windings, and main windings.
Motor overload protector has cycled.	• Wait two or three minutes for overload protector to reset. If protector cycles repeatedly, refer to *Paragraph 37*.
Motor centrifugal switch sticky or plugged with lint.	• Remove dust or lint and spray with “SLYDE,” No. 131P4, to clean and lubricate.
Bind in motor bearing.	• Remove belt and determine if motor shaft will spin. • Replace motor if shaft is locked up.
Loose motor wire harness connection block.	• Firmly press connection block onto motor switch.
Broken, loose, or incorrect wiring.	• Refer to wiring diagram.
Power cord is miswired.	• Refer to wiring diagram for the correct wiring.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

37. UNIT STOPS IN CYCLE; QUITS AFTER THE FIRST FEW LOADS; HAS A BURNING SMELL; CYCLES ON MOTOR THERMAL PROTECTOR

POSSIBLE CAUSE	TO CORRECT
Incorrect Voltage.	• See nameplate in door well for correct voltage. • Refer to ***Installation Instructions*** (supplied with dryer) for electrical requirements.
Clothes load too large.	• Remove part of load. A normal washer load is a normal dryer load. Maximum load: dryer cylinder one half full of wet clothes.
Clothes cylinder is binding.	• Check cylinder for binding and “out of round” condition. • Check front and rear bulkheads for warping. • Check support rollers for binding. • Check cylinder seals and glides for wear or damage. • Check for clothes lodged between cylinder baffle and bulkhead.
Broken, loose or incorrect wiring.	• Refer to wiring diagram.
Motor switch functions inoperative. Short in motor winding.	• Refer to *Paragraph 138* to check switch and windings.
Clothes item caught in fan.	• Check fan for obstruction.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

38. MOTOR RUNS BUT CYLINDER DOES NOT TURN

POSSIBLE CAUSE	TO CORRECT
Motor drive pulley loose.	• Tighten pulley.
Belt not installed on pulley.	• Install belt. Refer to *Figure 56*.
Broken cylinder belt.	• Replace belt.
Clothes cylinder is binding.	• Check cylinder for binding and “out of round” condition. • Check front and rear bulkheads for warping. • Check cylinder rollers for binding. • Check cylinder seals and glides for wear or damage.
Broken, weak or disconnected idler lever spring.	• Replace or reconnect spring. Refer to *Figure 57*.
Belt routed on wrong side of idler lever.	• Reroute belt. Refer to *Figure 56*.
Oil on cylinder.	• Wipe oil from cylinder.
Belt is “inside out.”	• Reinstall belt with ribbed surface against cylinder.
Idler arm is binding.	• Add grease between idler arm and motor mount. • Replace idler arm and bolt if needed.
Dryer is overloaded.	• Remove some laundry from dryer.
Wrong motor.	• Refer to parts manual for correct motor part number.
Wrong belt used on dryer.	• Check belt part number against correct part number in the Parts manual. • Replace belt if needed.
Bent idler arm.	• Replace idler arm.

39. MOTOR DOES NOT STOP

POSSIBLE CAUSE	TO CORRECT
Incorrect wiring to motor switch.	• Refer to wiring diagram.
Motor centrifugal switch sticky or plugged with lint.	• Remove dust or lint and spray with “SLYDE,” Part No. 131P4, to clean and lubricate.
Inoperative door switch.	• Test switch and replace if inoperative.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

40. HEATING ASSEMBLY DOES NOT HEAT OR BURNER DOES NOT IGNITE

POSSIBLE CAUSE	TO CORRECT
Improper or inadequate exhaust system.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
Use of plastic or thin foil exhaust duct.	• Replace with rigid or semi-rigid metal exhaust duct.
Blown house fuse or tripped circuit breaker.	• Check fuses or circuit breakers. A 240 Volt dryer uses two fuses. Make sure both fuses are good.
Temperature selector switch set at FLUFF, or inoperative.	• Reset or test switch and replace if inoperative.
Inoperative limit thermostat.	• Test thermostat and replace if inoperative.
Inoperative drive motor switch.	• Test switch and replace if inoperative.
Electric Models: Inoperative heater assembly.	• Test heater assembly and replace if cold Ohms do not read between 9 and 10.5 Ohms.
Electric Models: Inoperative thermal fuse.	• Test thermal fuse and replace if inoperative.
Gas Models: Insufficient gas supply.	• Check gas shut-off valve in dryer and main gas line valve. • Open partially closed gas shut-off valve, or correct low gas pressure.
Gas Models: Inoperative gas valve coils.	• Test coils and replace if inoperative. Refer to *Paragraph 142*.
Gas Models: Inoperative sensor.	• Test sensor and replace if inoperative. Refer to *Paragraph 117, step c.*
Gas Models: Inoperative igniter.	• Test igniter and replace if inoperative. Refer to *Paragraph 144*.
Gas Models: Harness not properly connected to gas controls.	• Check harness connections to gas valve coils, sensor and main harness. • Reconnect as required.
Gas Models: Restricted gas flow in gas orifice.	• Clean out gas orifice.
Inoperative cycling thermostat.	• Test thermostat and replace if inoperative.
Broken, loose, or incorrect wiring.	• Refer to wiring diagram.

41. IGNITER DOES NOT GLOW (Gas Supply Sufficient) – GAS MODELS

POSSIBLE CAUSE	TO CORRECT
No power to power leads on valve.	• Check timer, selector switch, thermostats, motor switch, and wiring.
Sensor failed with contacts open.	• Replace sensor.
Igniter broken or open.	• Replace igniter.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

42. BURNER IGNITES AND GOES OUT REPEATEDLY – GAS MODELS

POSSIBLE CAUSE	TO CORRECT
Improper or inadequate exhaust system. Weather hood flapper restricted.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
Burner heat not holding sensor contacts open.	• Replace sensor, or correct gas supply problem.
Insufficient gas supply.	• Check gas supply and pressure. • Make sure gas shut-off valve is turned on.
Cracked igniter.	• Replace igniter and bracket.
Inoperative or intermittent gas valve coils.	• Check coils and replace appropriate coils. Refer to *Paragraph 142*.

43. IGNITER GLOWS BUT BURNER DOES NOT IGNITE – GAS MODELS

POSSIBLE CAUSE	TO CORRECT
Sensor failed in closed position.	• Replace sensor.
Open secondary coil or holding coil.	• Replace gas valve (in-warranty), or replace coils (out-of-warranty). Refer to *Paragraph 142*.
Insufficient gas supply.	• Check gas supply and pressure. • Make sure gas shut-off valve is turned on.
Igniter and bracket installed improperly on burner tube assembly.	• Loosen screw and properly position igniter and bracket on burner tube assembly.
Sensor installed improperly on burner housing.	• Loosen screw and properly position the sensor on the burner housing.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

44. HEATER ASSEMBLY OR BURNER SHUTS OFF PREMATURELY

POSSIBLE CAUSE	TO CORRECT
Improper or inadequate exhaust system. Weather hood flapper restricted.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
Gas Models: Insufficient gas supply.	• Check main gas line shut-off valve. • Open partially closed gas shut-off valve, or correct low pressure.
Gas Models: Dryer not properly equipped for type of gas used.	• Refer to "Gas Burner Conversion Procedures" supplied in gas burner conversion kit.
Gas Models: Improperly adjusted burner flame.	• Adjust flame. Refer to *Paragraph 136*.
Cycling off on limit thermostat.	• Momentarily connect a jumper wire across thermostat terminals. If heater element heats or burner ignites when jumper wire is connected, refer to *Paragraph 45*.
Gas models: Sensor contact closing	• Replace sensor (*Paragraph 117, step c*) or adjust burner flame. Refer to *Paragraph 136*.
Inoperative cycling thermostat.	• Test thermostat and replace if inoperative.
Inoperative timer.	• Test timer and replace if inoperative.
Broken, loose, or incorrect wiring.	• Refer to wiring diagram.

45. HEATER ASSEMBLY OR BURNER REPEATEDLY CYCLES OFF ON LIMIT THERMOSTAT

POSSIBLE CAUSE	TO CORRECT
External exhaust system longer or providing greater restriction than recommended.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust system requirements.
Use of plastic or thin foil exhaust duct.	• Replace with rigid or semi-rigid metal exhaust duct.
Clogged lint filter.	• Clean lint filter.
Lint in internal dryer ductwork.	• Disassemble dryer ductwork and clean.
Lint or other obstruction in external exhaust system.	• Disassemble and clean exhaust system.
Hinged damper on exhaust system weather hood not free to open.	• Free hinged damper or replace weather hood
Limit thermostat cycling at too low a temperature.	• Replace thermostat. Refer to *Paragraph 119*.
Air leak around loading door. (Door not sealing due to damaged seal or inoperative door catch.)	• Replace seal or catch.
Inoperative thermistor.	• Test thermistor and replace if inoperative.
Air leak at blower seal.	• Check and replace seal if necessary.
Air leak at cylinder seal(s).	• Check and replace seal(s) if necessary.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

46. HEATER ASSEMBLY OR BURNER DOES NOT SHUT OFF

POSSIBLE CAUSE	TO CORRECT
Improper motor switch. (Timer must be in a heat setting.)	• Test switch and replace if inoperative.
Motor does not stop.	• Refer to *Paragraph 39*.
Incorrect wiring.	• Refer to wiring diagram.
Heater assembly shorted.	• Remove heater assembly and check for short.

47. CLOTHES DO NOT DRY

POSSIBLE CAUSE	TO CORRECT
Heater assembly does not heat or burner does not ignite.	• Refer to *Paragraph 40*.
Too much water in articles being dried.	• Remove excess water.
Laundry load too large.	• Remove part of load. A normal washer load is a normal dryer load. Maximum load: Dryer cylinder one half full of wet clothes.
Laundry load too small.	• Add one or two bath towels to load.
Excessive lint on lint filter.	• Clean lint filter.
Heat selector switch set on FLUFF or inoperative.	• Reset switch, or test and replace the switch if inoperative.
Improper or inadequate exhaust system.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
Heater assembly or burner shuts off prematurely.	• Refer to *Paragraph 44*.
Gas Models: Gas line pressure too high or too low.	• If Natural Gas line pressure to dryer exceeds 8 inch water column pressure, or is lower than 4 inch water column, ask Gas Company to correct.
Improper belt installation (Low RPM).	• Check for proper installation. Refer to *Figure 56*.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

48. CLOTHES ARE TOO HOT WHEN REMOVED FROM DRYER

POSSIBLE CAUSE	TO CORRECT
Improper or inadequate exhaust system.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
Clothes are removed from dryer before cycle has completed.	• Allow the dryer to complete the cycle through the cool-down to the OFF position.
Inoperative cycling thermostat.	• Test cycling thermostat and replace if inoperative.
Inoperative timer (not allowing cool-down).	• Test timer and replace if inoperative.
Inoperative seals (air leaks).	• Check and replace any inoperative seals in the following areas: 1. Seal between loading door and front panel. 2. Seal between front panel and front bulkhead. 3. Seal between blower cover and air duct. 4. Seal between cylinder and front or rear bulkhead. 5. Gap between air duct and filter mounting.

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Troubleshooting

EDC Models – Dryer Control

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

49. ERROR CODE LISTING

Listed below are some of the error codes that may appear on the electronic control.

“E:00”	General Error	
“E:01”	Proximity Error	Micro-wand IIIe is improperly aimed at infrared communicator (angle or distance): Re-aim Micro-wand IIIe.
“E:02”	IR Communication Disconnection	Micro-wand IIIe prematurely pulled away from electronic control during infrared communication: Maintain infrared connection between Micro-wand IIIe and electronic control during communication.
“E:05”	Invalid Value Communication	Invalid code downloaded from Micro-wand IIIe to electronic control.
“E:07”	Inoperative Control	Replace electronic control.
“E:08”	Inoperative Control	Replace electronic control.
“E:09”	Proximity Error	Micro-wand IIIe is improperly aimed at infrared communicator (angle or distance): Re-aim Micro-wand IIIe.
“E:0A”	Proximity Error	Micro-wand IIIe is improperly aimed at infrared communicator (angle or distance): Re-aim Micro-wand IIIe.
“E:0B”	IR Communication Disconnection	Micro-wand IIIe prematurely pulled away from electronic control during infrared communication: Maintain infrared connection between Micro-wand IIIe and electronic control during communication.
“E:0C”	IR Communication Disconnection	Micro-wand IIIe prematurely pulled away from electronic control during infrared communication: Maintain infrared connection between Micro-wand IIIe and electronic control during communication.
“E:0d”	Pressure Switch Error	1. Check fill and drain hoses for improper installation and kinks. 2. Check fill electrical circuit: Replace inoperative switches or wires.
“E:0F”	IR Communicator Programmed Off	Reprogram infrared communicator on.
“Err”	Coin Error	1. Inoperative coin sensor: Run the coin drop diagnostic test. 2. Coin drop obstruction: Check coin drop area and remove any obstructions. 3. Customer tampering: Evaluate security procedures.
“OP”	Open Thermistor	Physical opening in the thermistor circuit: Change thermistor.
“SH”	Shorted Thermistor	Dead short in the thermistor circuit: Change thermistor.

NOTE: Disconnecting power to the unit may clear the error display.

NOTE: If replacing an inoperative electronic control due to burnt pin(s) on the 6-pin wire harness connector block, it may be due to damaged terminals in the harness connector. Damaged terminals in the harness connector will appear burnt or show signs of heat discoloration on the connector block. Replace the main wire harness with the control to avoid repeated damage.

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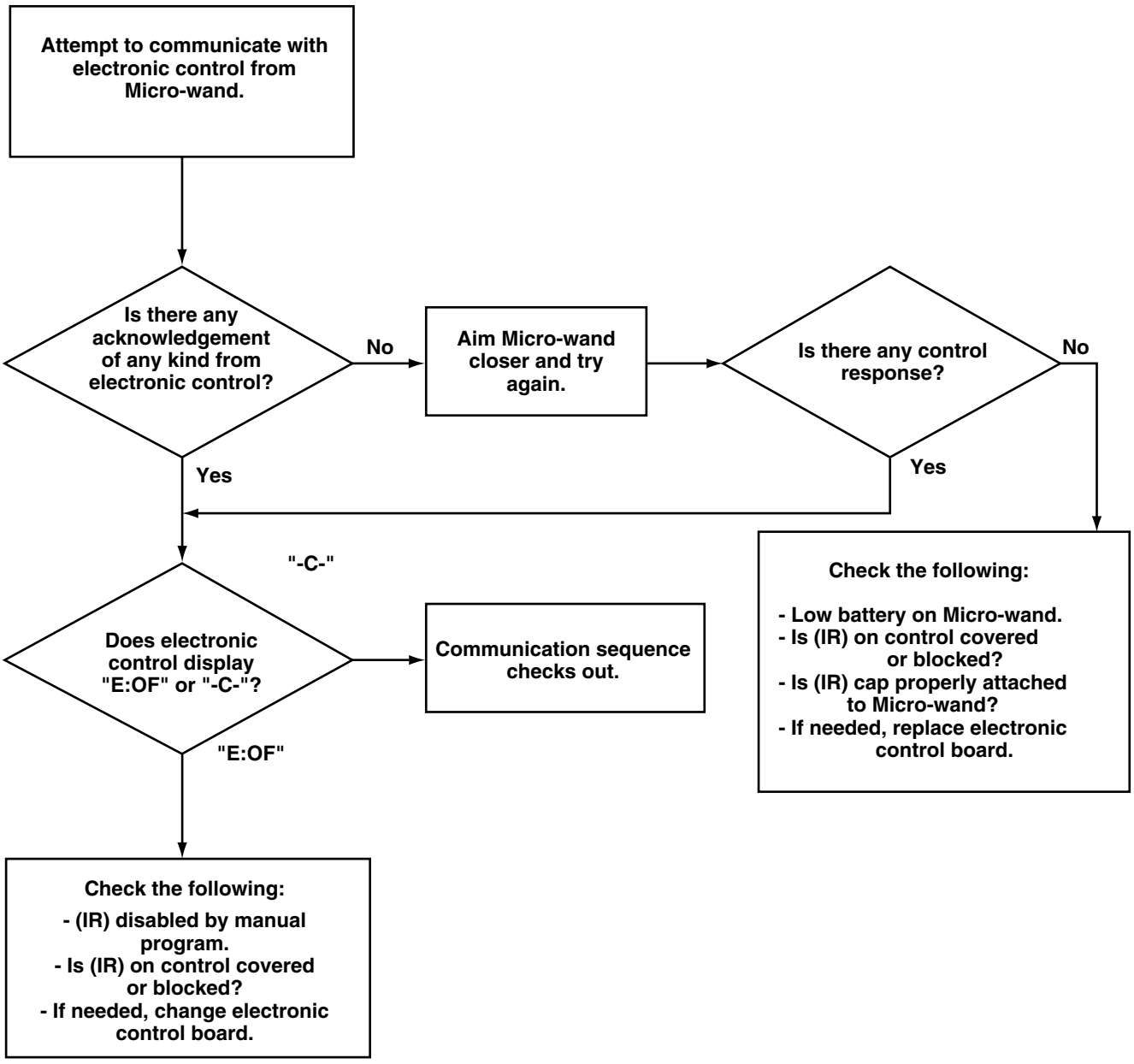
50. CANNOT PERFORM INFRARED COMMUNICATION


Attempt to communicate with electronic control from Micro-wand.
Is there any acknowledgement of any kind from electronic control?
No
Aim Micro-wand closer and try again.
Is there any control response?
No
Yes
Yes
"-C-"
Does electronic control display "E:OF" or "-C-"?
Communication sequence checks out.
"E:OF"
Check the following:
- Low battery on Micro-wand.
- Is (IR) on control covered or blocked?
- Is (IR) cap properly attached to Micro-wand?
- If needed, replace electronic control board.
Check the following:
- (IR) disabled by manual program.
- Is (IR) on control covered or blocked?
- If needed, change electronic control board.

H130S

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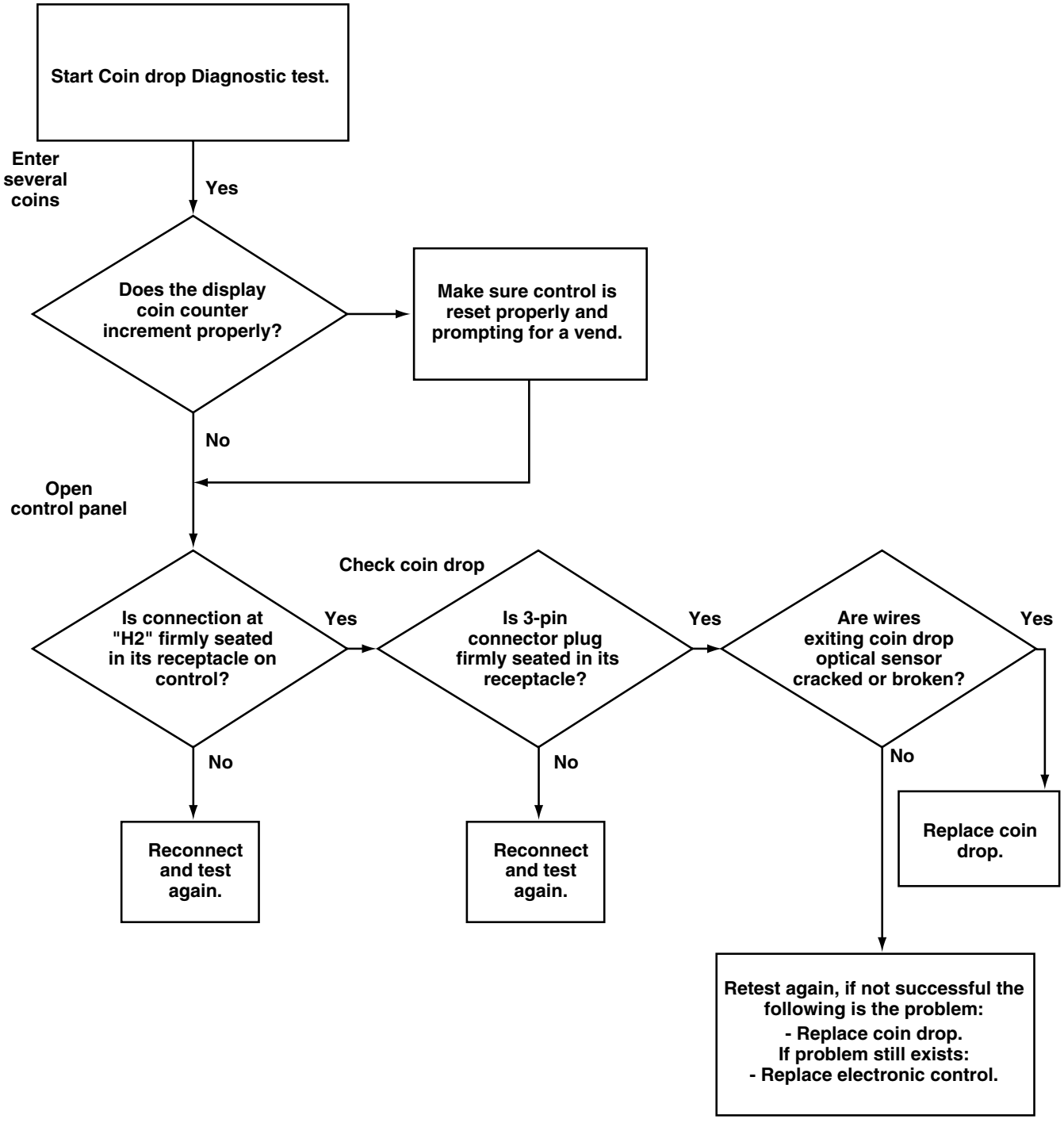
51. COINS IGNORED WHEN ENTERED


Start Coin drop Diagnostic test.
Enter several coins
Yes
Does the display coin counter increment properly?
Make sure control is reset properly and prompting for a vend.
No
Open control panel
Check coin drop
Is connection at "H2" firmly seated in its receptacle on control?
Yes
Is 3-pin connector plug firmly seated in its receptacle?
Yes
Are wires exiting coin drop optical sensor cracked or broken?
Yes
No
No
No
Reconnect and test again.
Reconnect and test again.
Replace coin drop.
Retest again, if not successful the following is the problem:
- Replace coin drop.
If problem still exists:
- Replace electronic control.
H131SE3A

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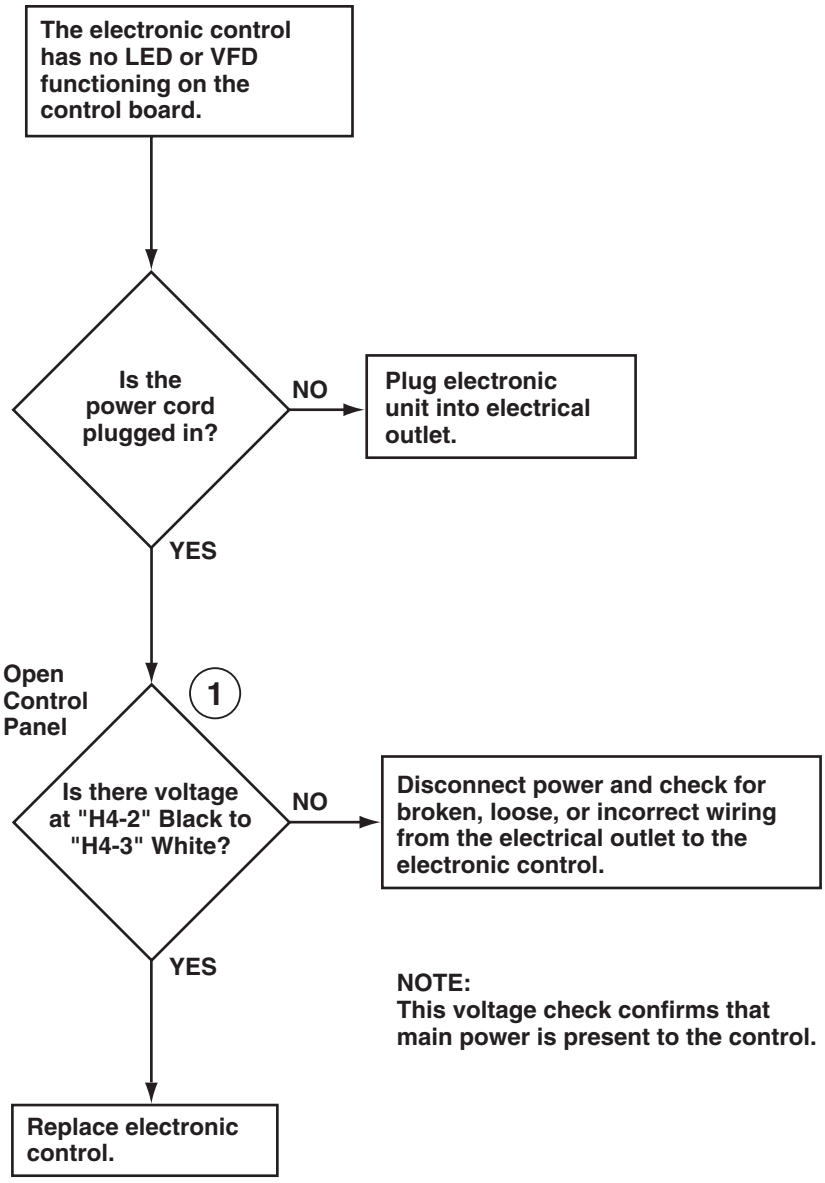
52. ELECTRONIC CONTROL HAS NO VISIBLE DISPLAY – DRYER


The electronic control has no LED or VFD functioning on the control board.
Is the power cord plugged in?
NO
Plug electronic unit into electrical outlet.
YES
Open Control Panel
1
Is there voltage at "H4-2" Black to "H4-3" White?
NO
Disconnect power and check for broken, loose, or incorrect wiring from the electrical outlet to the electronic control.
YES
NOTE:
This voltage check confirms that main power is present to the control.
Replace electronic control.
D203S

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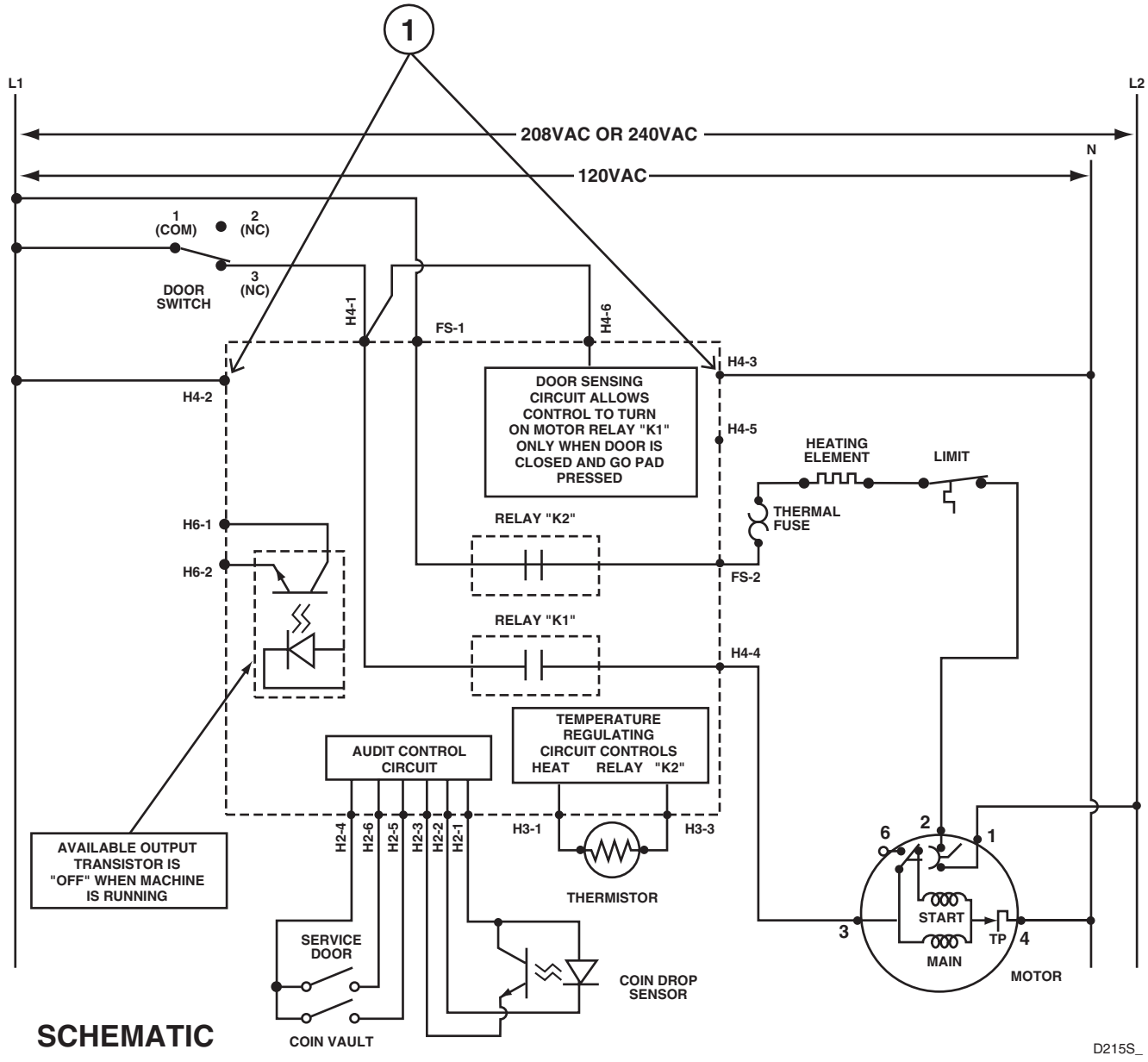
ELECTRONIC CONTROL HAS NO VISIBLE DISPLAY – DRYER



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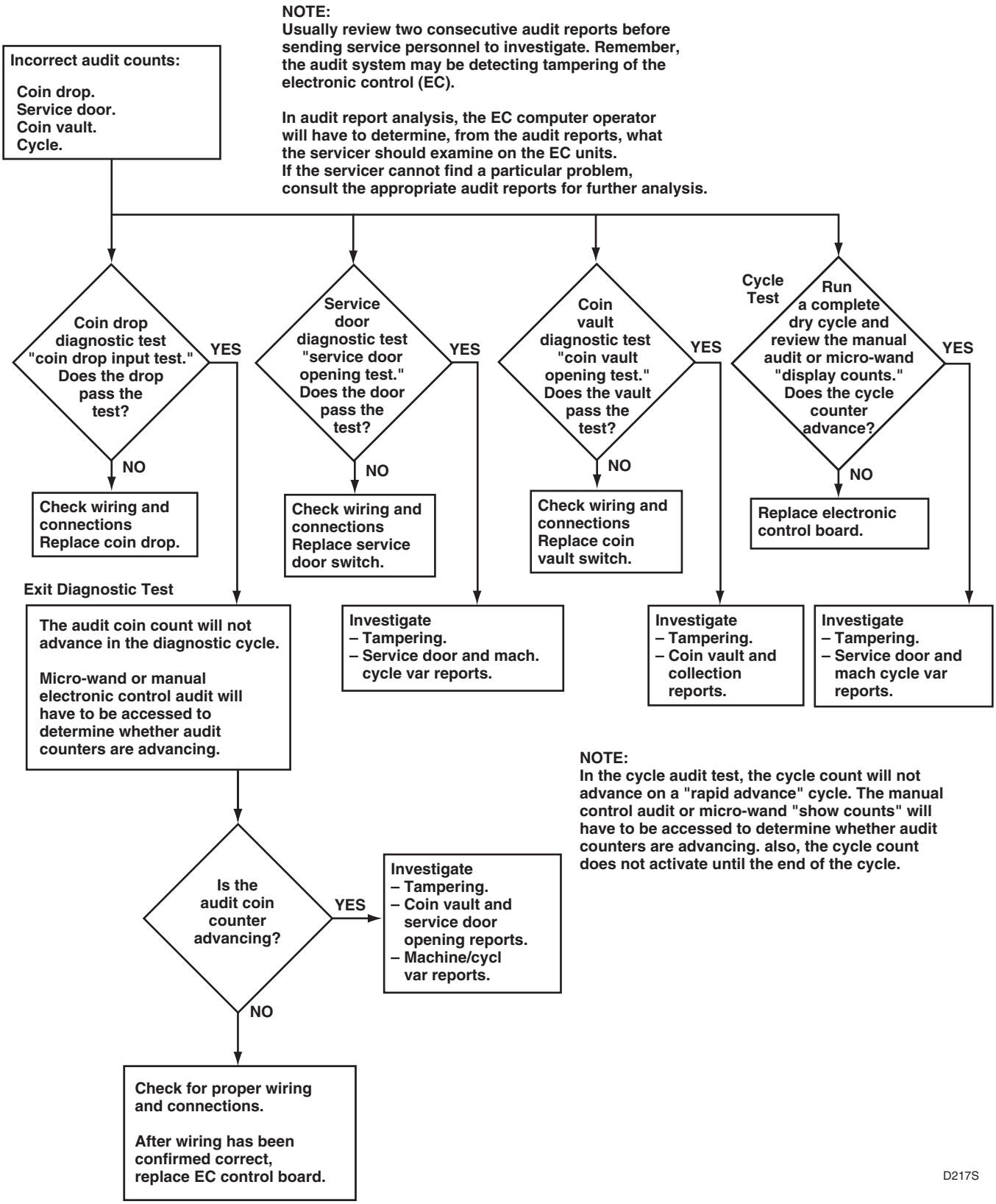
53. AUDIT SWITCH FUNCTION ANALYSIS


NOTE:
Usually review two consecutive audit reports before sending service personnel to investigate. Remember, the audit system may be detecting tampering of the electronic control (EC).
In audit report analysis, the EC computer operator will have to determine, from the audit reports, what the servicer should examine on the EC units.
If the servicer cannot find a particular problem, consult the appropriate audit reports for further analysis.
Incorrect audit counts:
Coin drop.
Service door.
Coin vault.
Cycle.
Coin drop diagnostic test "coin drop input test." Does the drop pass the test?
YES
NO
Check wiring and connections
Replace coin drop.
Service door diagnostic test "service door opening test." Does the door pass the test?
YES
NO
Check wiring and connections
Replace service door switch.
Coin vault diagnostic test "coin vault opening test." Does the vault pass the test?
YES
NO
Check wiring and connections
Replace coin vault switch.
Cycle Test
Run a complete dry cycle and review the manual audit or micro-wand "display counts." Does the cycle counter advance?
YES
NO
Replace electronic control board.
Exit Diagnostic Test
The audit coin count will not advance in the diagnostic cycle.
Micro-wand or manual electronic control audit will have to be accessed to determine whether audit counters are advancing.
Investigate
– Tampering.
– Service door and mach. cycle var reports.
Investigate
– Tampering.
– Coin vault and collection reports.
Investigate
– Tampering.
– Service door and mach cycle var reports.
NOTE:
In the cycle audit test, the cycle count will not advance on a "rapid advance" cycle. The manual control audit or micro-wand "show counts" will have to be accessed to determine whether audit counters are advancing. also, the cycle count does not activate until the end of the cycle.
Is the audit coin counter advancing?
YES
Investigate
– Tampering.
– Coin vault and service door opening reports.
– Machine/cycl var reports.
NO
Check for proper wiring and connections.
After wiring has been confirmed correct, replace EC control board.
D217S

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Notes

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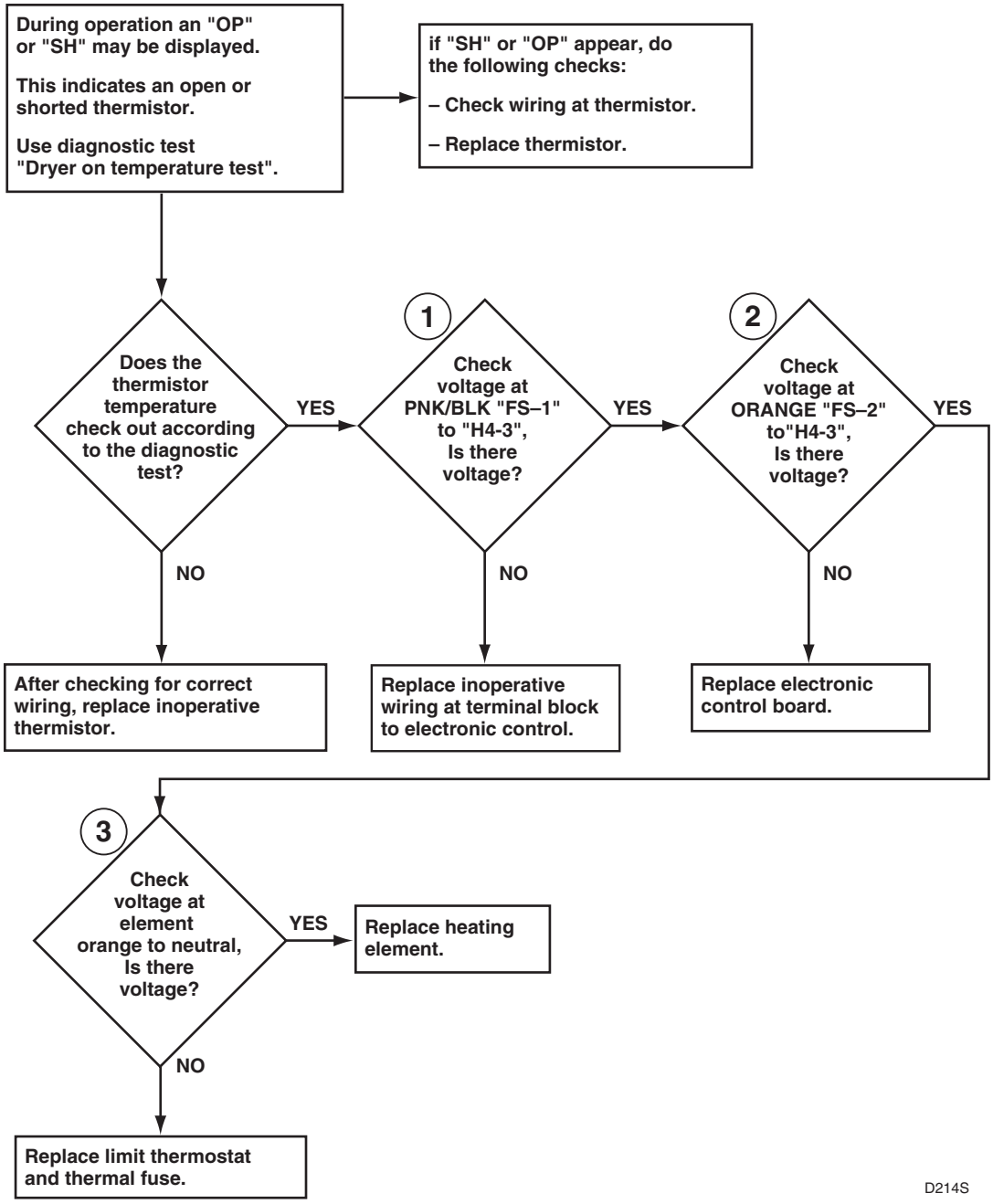
54. ELECTRONIC CONTROL ELECTRIC DRYER — NO HEAT ANALYSIS


During operation an "OP" or "SH" may be displayed.
This indicates an open or shorted thermistor.
Use diagnostic test "Dryer on temperature test".
if "SH" or "OP" appear, do the following checks:
– Check wiring at thermistor.
– Replace thermistor.
Does the thermistor temperature check out according to the diagnostic test?
YES
NO
1
Check voltage at PNK/BLK "FS–1" to "H4-3", Is there voltage?
YES
NO
2
Check voltage at ORANGE "FS–2" to"H4-3", Is there voltage?
YES
NO
After checking for correct wiring, replace inoperative thermistor.
Replace inoperative wiring at terminal block to electronic control.
Replace electronic control board.
3
Check voltage at element orange to neutral, Is there voltage?
YES
NO
Replace heating element.
Replace limit thermostat and thermal fuse.
D214S

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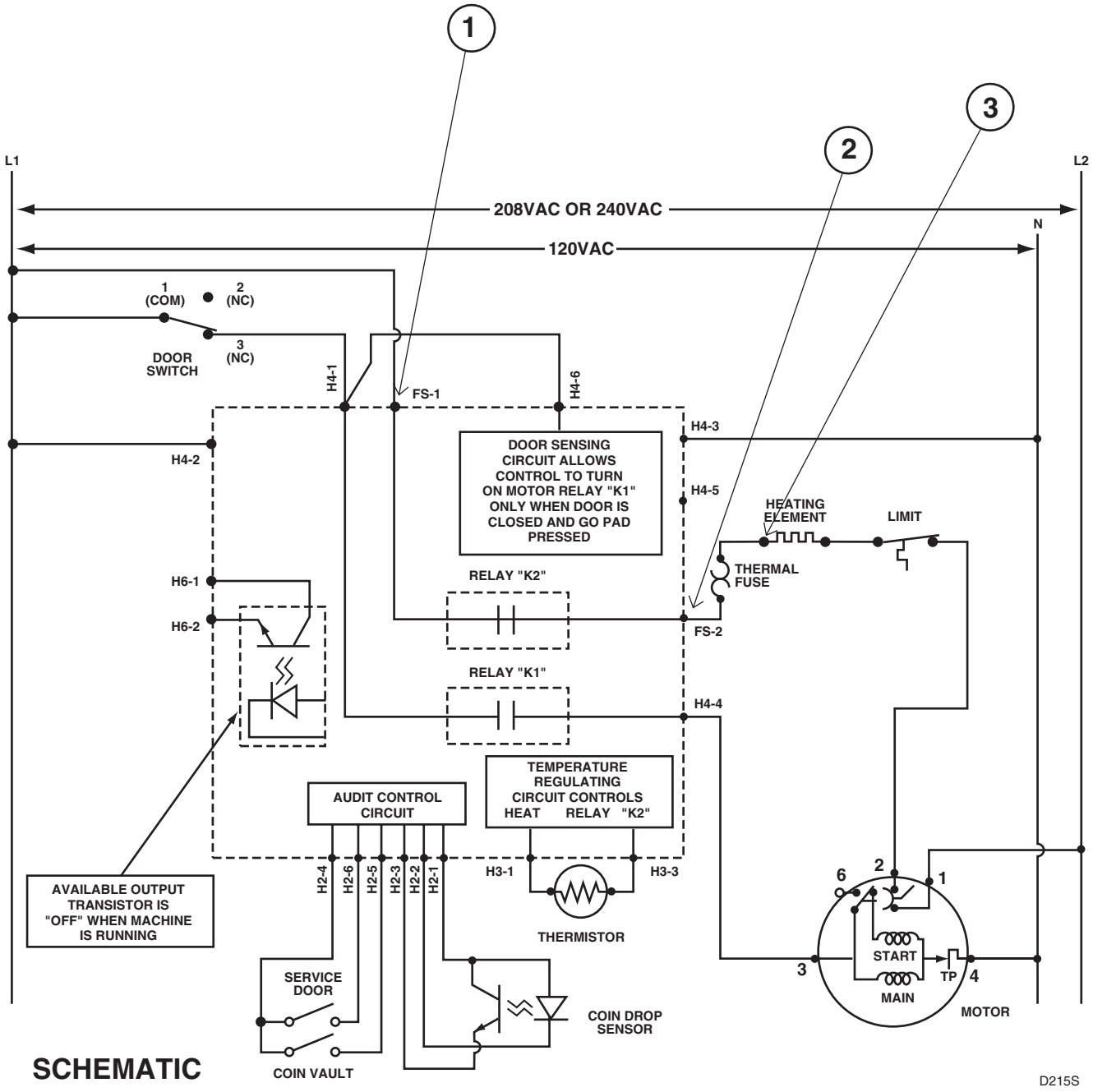
ELECTRONIC CONTROL ELECTRIC DRYER — NO HEAT ANALYSIS



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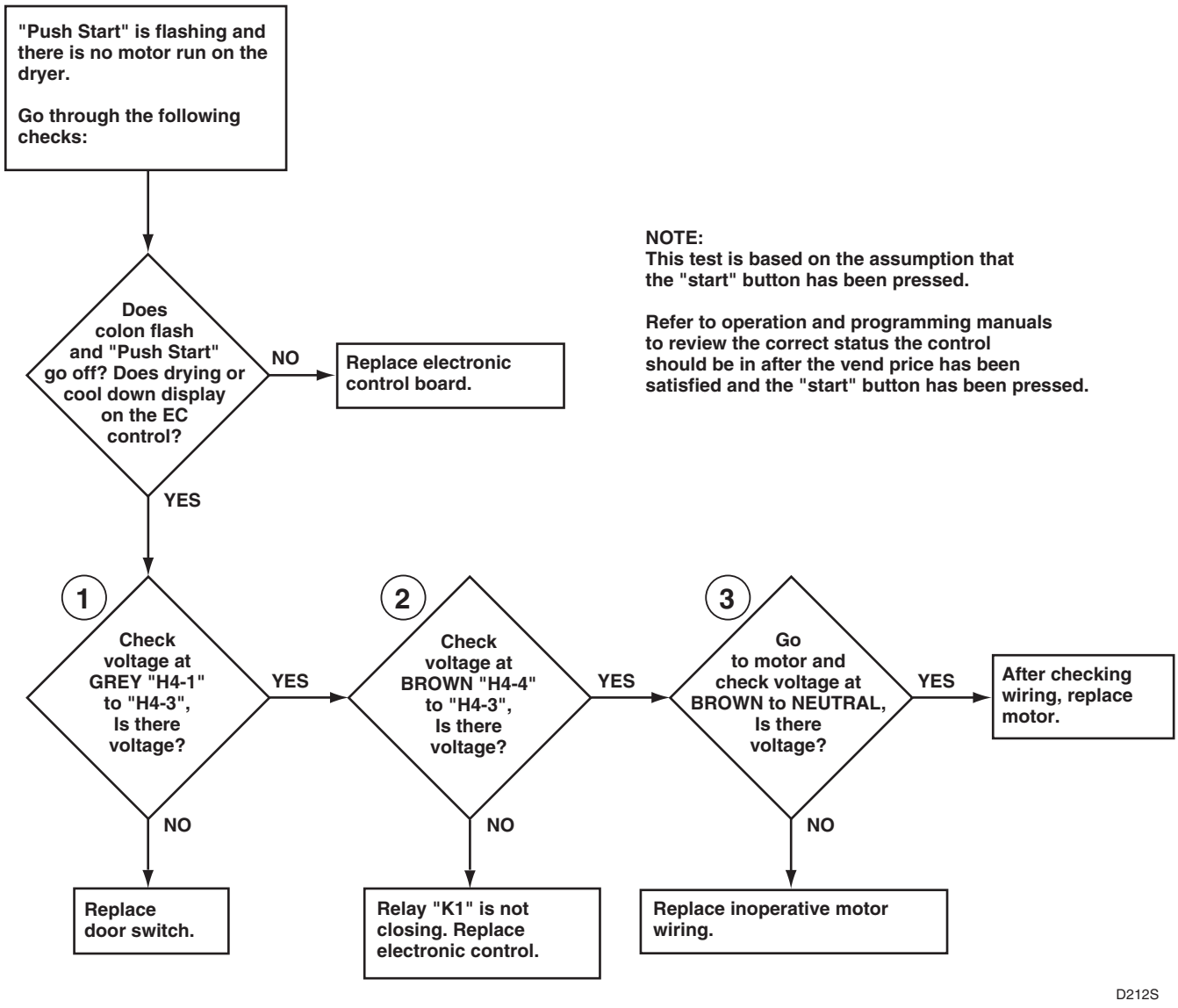
55. ELECTRONIC CONTROL ELECTRIC DRYER — NO MOTOR RUN — “PUSH START” ANALYSIS


"Push Start" is flashing and there is no motor run on the dryer.
Go through the following checks:
Does colon flash and "Push Start" go off? Does drying or cool down display on the EC control?
NO
Replace electronic control board.
YES
NOTE:
This test is based on the assumption that the "start" button has been pressed.
Refer to operation and programming manuals to review the correct status the control should be in after the vend price has been satisfied and the "start" button has been pressed.
1
Check voltage at GREY "H4-1" to "H4-3", Is there voltage?
YES
2
Check voltage at BROWN "H4-4" to "H4-3", Is there voltage?
YES
3
Go to motor and check voltage at BROWN to NEUTRAL, Is there voltage?
YES
After checking wiring, replace motor.
NO
Replace door switch.
NO
Relay "K1" is not closing. Replace electronic control.
NO
Replace inoperative motor wiring.
D212S

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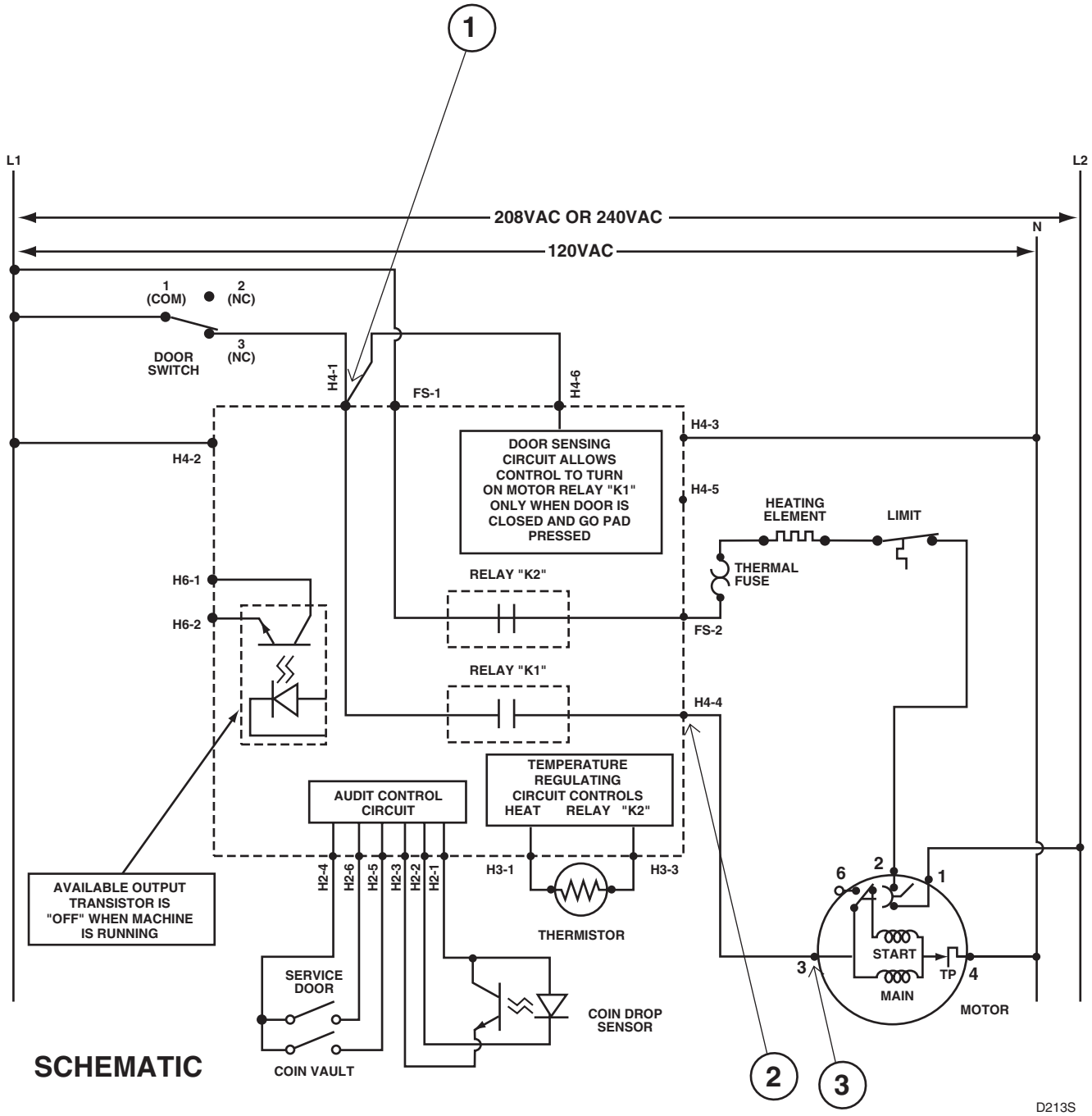
ELECTRONIC CONTROL ELECTRIC DRYER — NO MOTOR RUN — "PUSH START" ANALYSIS



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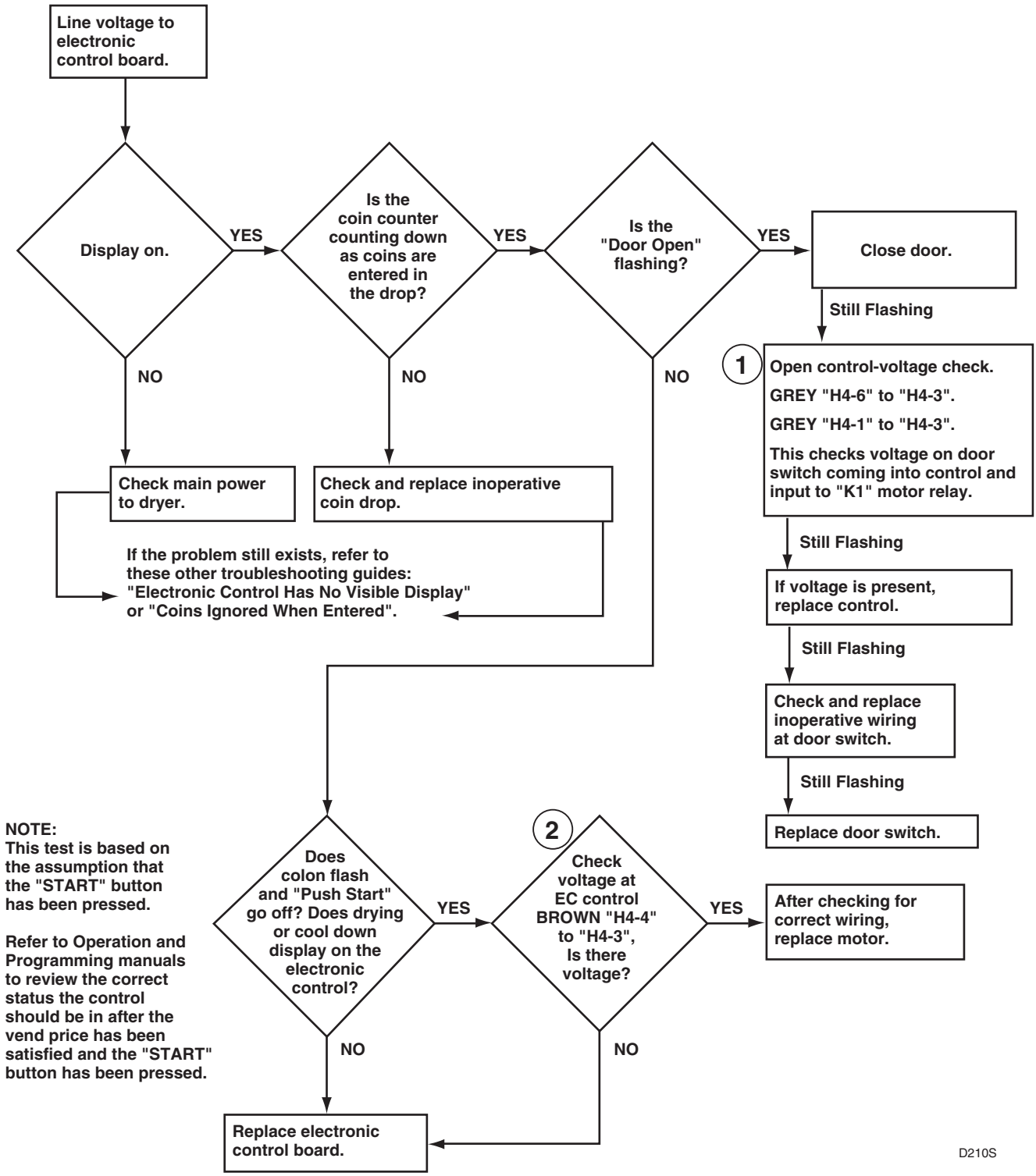
56. ELECTRONIC CONTROL ELECTRIC DRYER — NO MOTOR RUN — "DOOR OPEN" ANALYSIS


Line voltage to electronic control board.
Display on.
YES
Is the coin counter counting down as coins are entered in the drop?
YES
Is the "Door Open" flashing?
YES
Close door.
Still Flashing
NO
NO
NO
1
Open control-voltage check.
GREY "H4-6" to "H4-3".
GREY "H4-1" to "H4-3".
This checks voltage on door switch coming into control and input to "K1" motor relay.
Check main power to dryer.
Check and replace inoperative coin drop.
If the problem still exists, refer to these other troubleshooting guides: "Electronic Control Has No Visible Display" or "Coins Ignored When Entered".
Still Flashing
If voltage is present, replace control.
Still Flashing
Check and replace inoperative wiring at door switch.
Still Flashing
Replace door switch.
NOTE:
This test is based on the assumption that the "START" button has been pressed.
Refer to Operation and Programming manuals to review the correct status the control should be in after the vend price has been satisfied and the "START" button has been pressed.
Does colon flash and "Push Start" go off? Does drying or cool down display on the electronic control?
YES
2
Check voltage at EC control BROWN "H4-4" to "H4-3", Is there voltage?
YES
After checking for correct wiring, replace motor.
NO
NO
Replace electronic control board.
D210S

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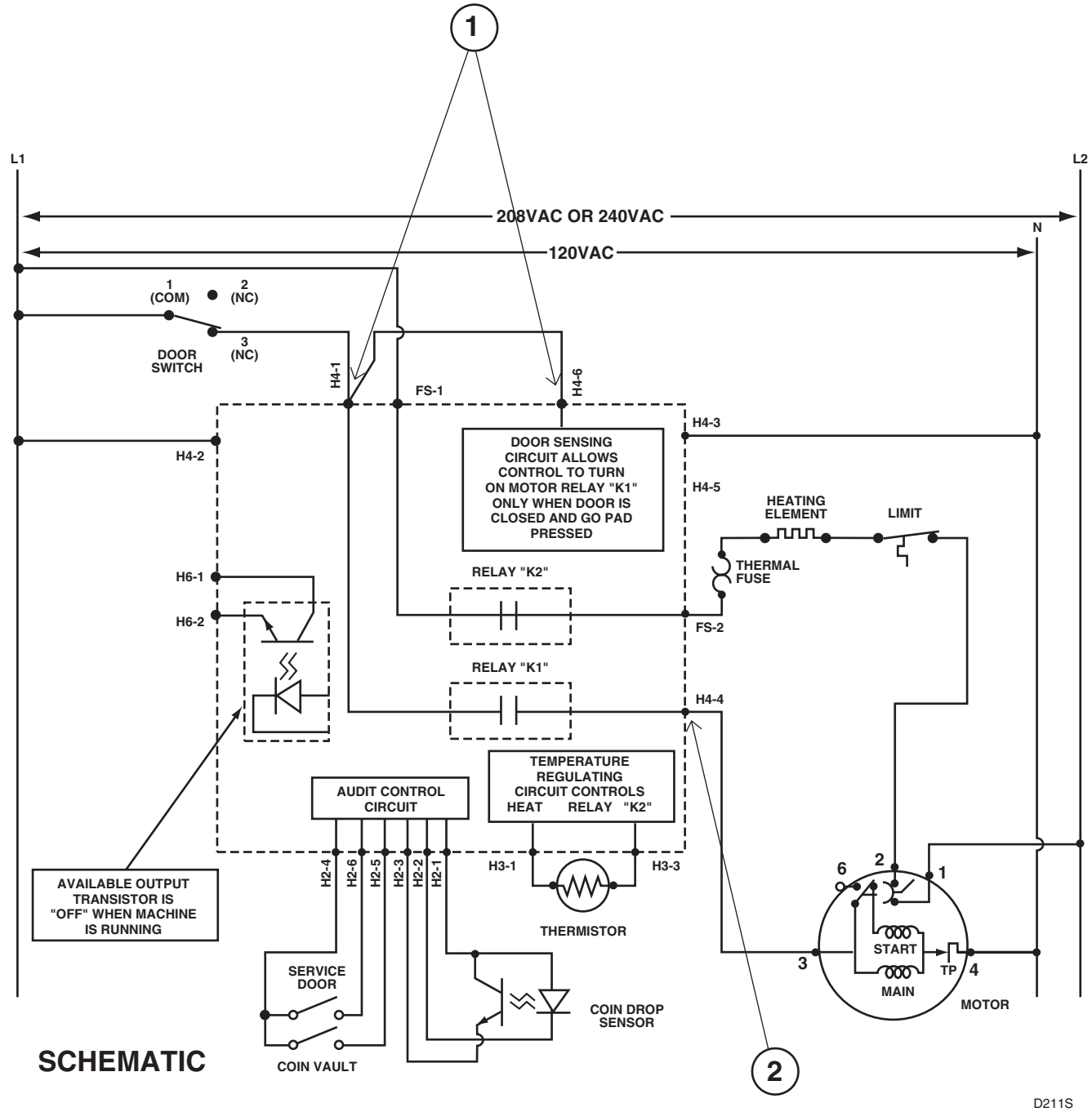
ELECTRONIC CONTROL ELECTRIC DRYER — NO MOTOR RUN — "DOOR OPEN" ANALYSIS



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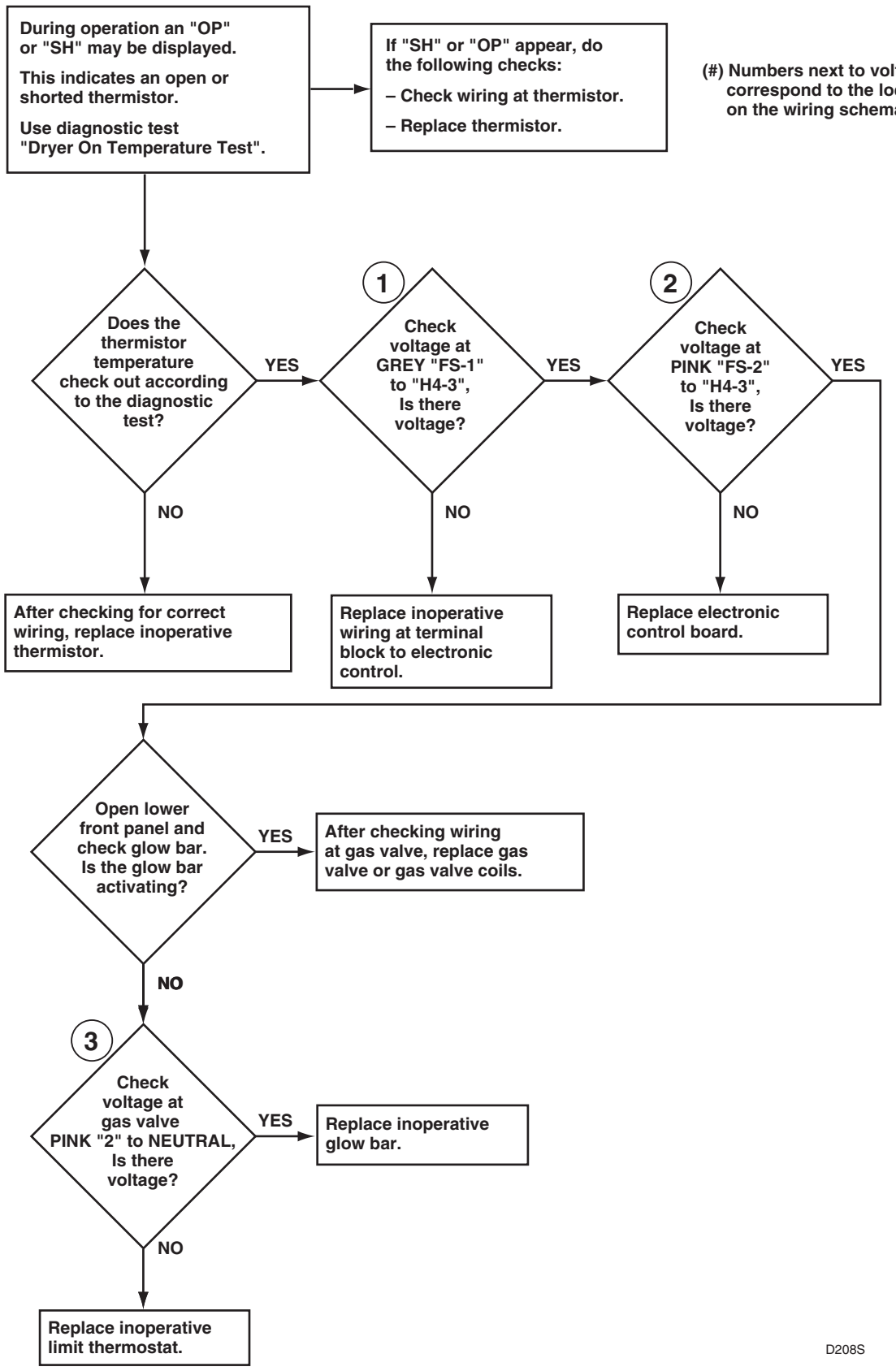
57. ELECTRONIC CONTROL GAS DRYER — NO HEAT ANALYSIS


During operation an "OP" or "SH" may be displayed.
This indicates an open or shorted thermistor.
Use diagnostic test "Dryer On Temperature Test".
If "SH" or "OP" appear, do the following checks:
– Check wiring at thermistor.
– Replace thermistor.
(#) Numbers next to voltage checks correspond to the locations marked on the wiring schematic.
Does the thermistor temperature check out according to the diagnostic test?
YES
1
Check voltage at GREY "FS-1" to "H4-3", Is there voltage?
YES
2
Check voltage at PINK "FS-2" to "H4-3", Is there voltage?
YES
NO
NO
NO
After checking for correct wiring, replace inoperative thermistor.
Replace inoperative wiring at terminal block to electronic control.
Replace electronic control board.
Open lower front panel and check glow bar. Is the glow bar activating?
YES
After checking wiring at gas valve, replace gas valve or gas valve coils.
NO
3
Check voltage at gas valve PINK "2" to NEUTRAL, Is there voltage?
YES
Replace inoperative glow bar.
NO
Replace inoperative limit thermostat.
D208S

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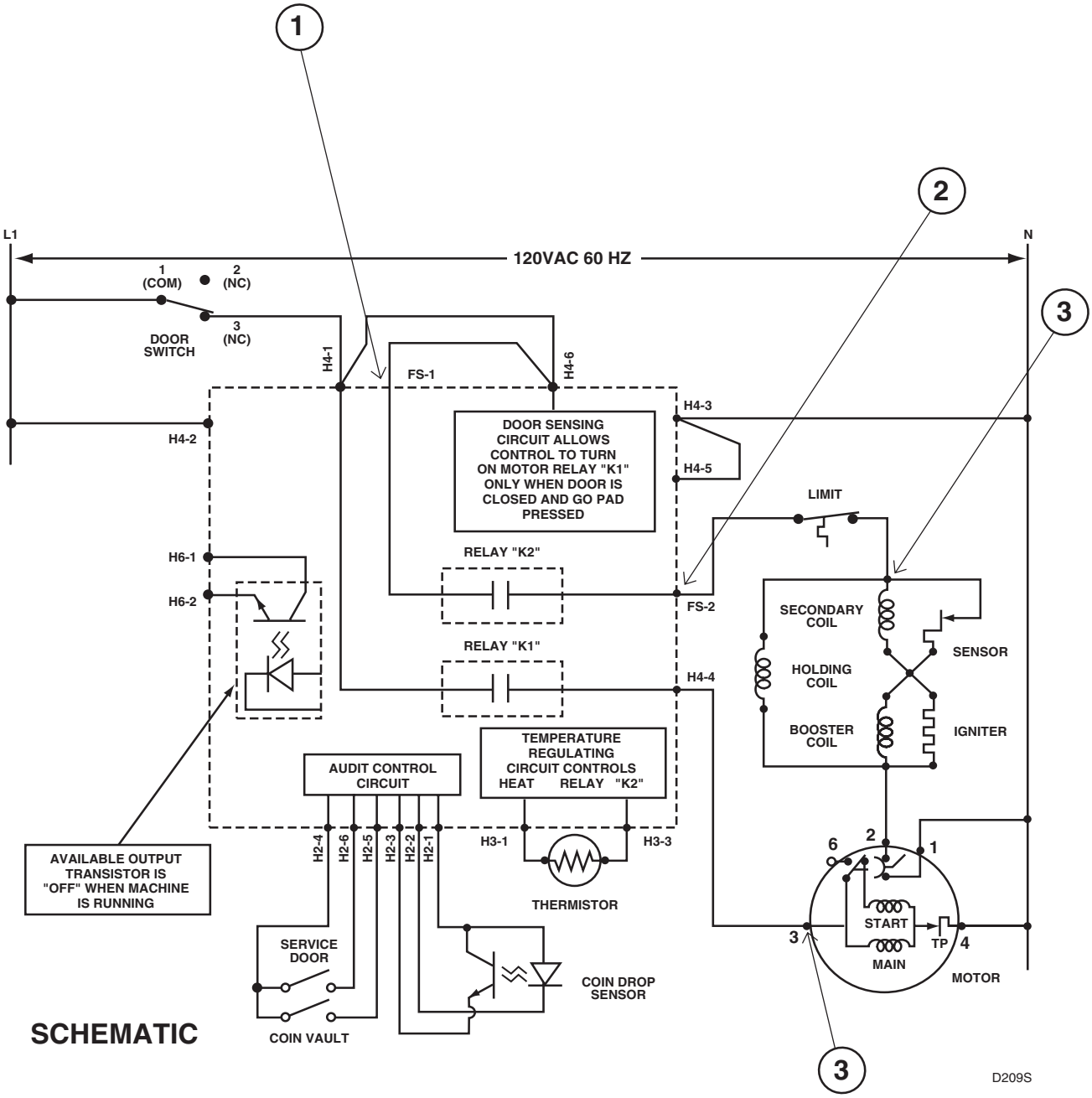
ELECTRONIC CONTROL GAS DRYER — NO HEAT ANALYSIS



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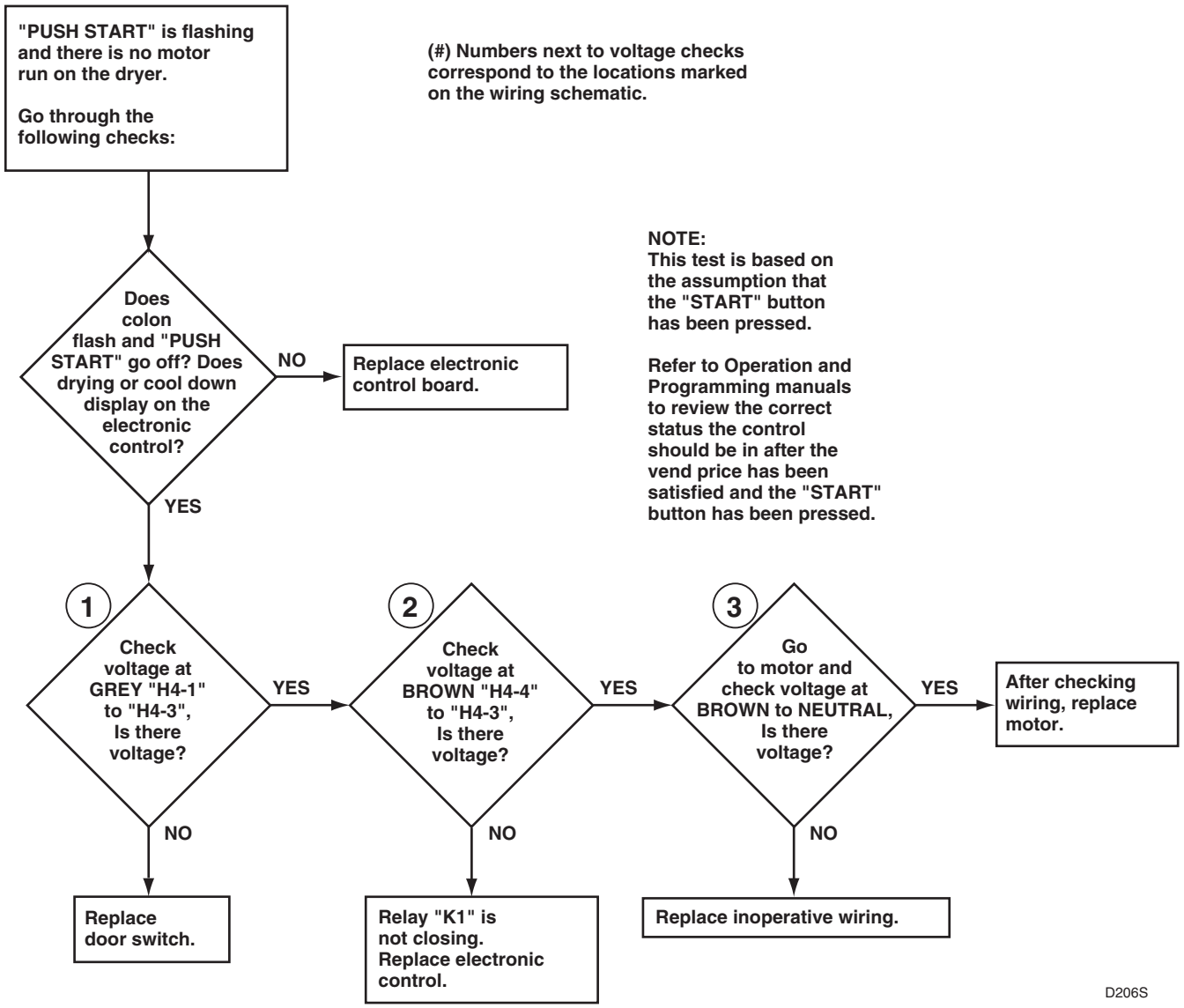
58. ELECTRONIC CONTROL GAS DRYER — NO MOTOR RUN — "PUSH START" ANALYSIS


"PUSH START" is flashing and there is no motor run on the dryer.
Go through the following checks:
(#) Numbers next to voltage checks correspond to the locations marked on the wiring schematic.
NOTE:
This test is based on the assumption that the "START" button has been pressed.
Refer to Operation and Programming manuals to review the correct status the control should be in after the vend price has been satisfied and the "START" button has been pressed.
Does colon flash and "PUSH START" go off? Does drying or cool down display on the electronic control?
NO
Replace electronic control board.
YES
1
Check voltage at GREY "H4-1" to "H4-3", Is there voltage?
YES
2
Check voltage at BROWN "H4-4" to "H4-3", Is there voltage?
YES
3
Go to motor and check voltage at BROWN to NEUTRAL, Is there voltage?
YES
After checking wiring, replace motor.
NO
Replace door switch.
NO
Relay "K1" is not closing. Replace electronic control.
NO
Replace inoperative wiring.
D206S

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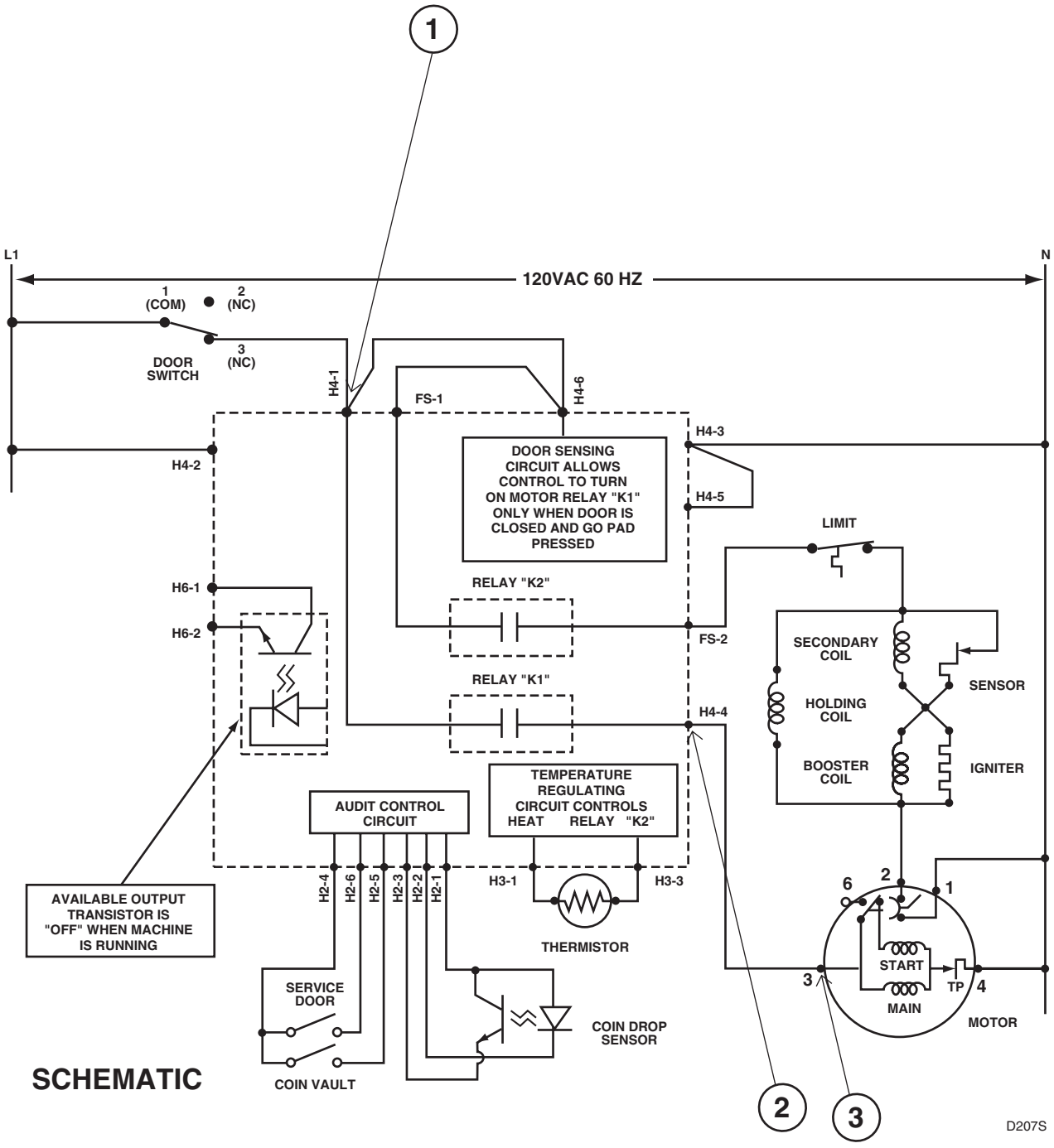
ELECTRONIC CONTROL GAS DRYER — NO MOTOR RUN — "PUSH START" ANALYSIS



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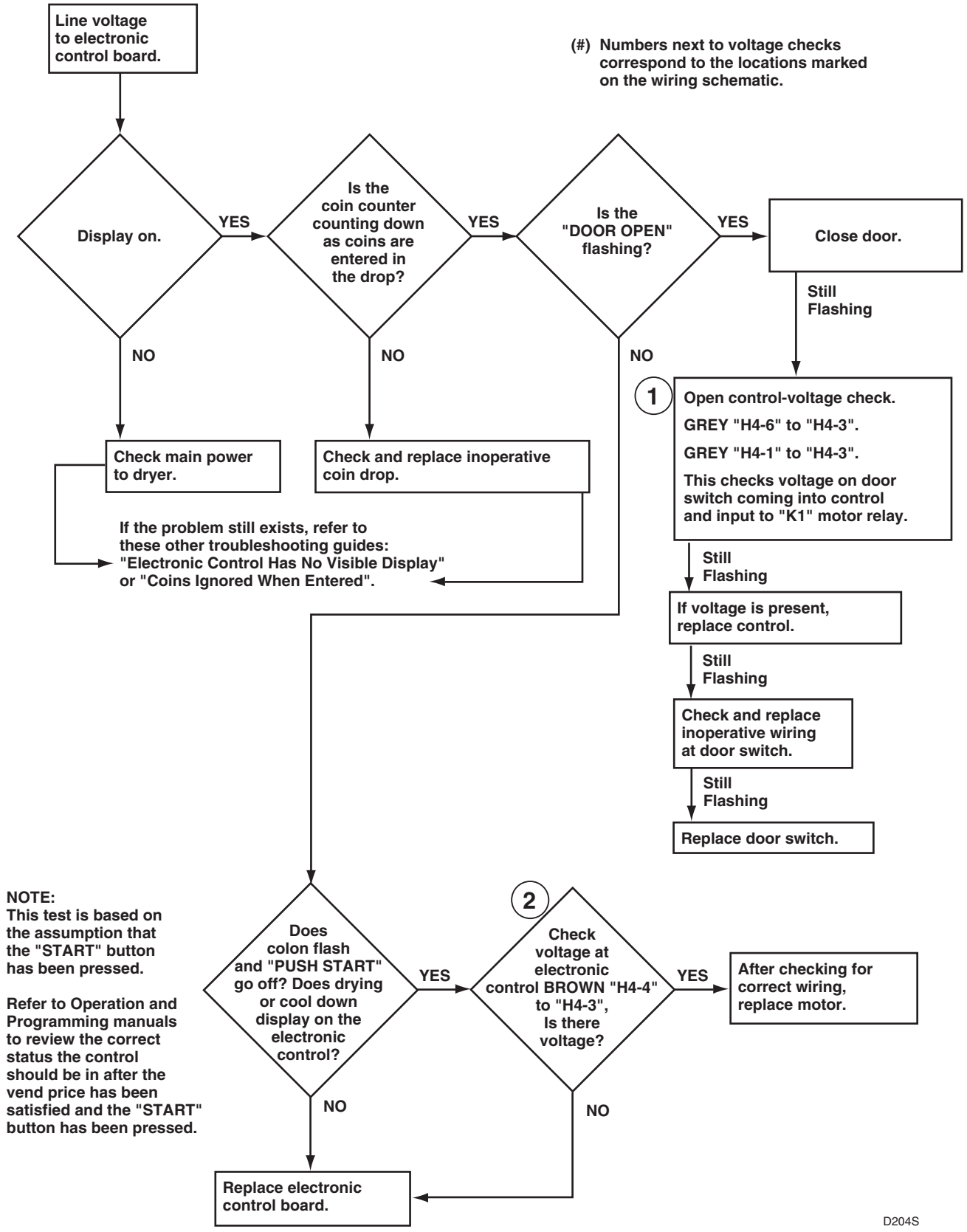
59. ELECTRONIC CONTROL GAS DRYER — NO MOTOR RUN — "DOOR OPEN" ANALYSIS


Line voltage to electronic control board.
(#) Numbers next to voltage checks correspond to the locations marked on the wiring schematic.
Display on.
YES
Is the coin counter counting down as coins are entered in the drop?
YES
Is the "DOOR OPEN" flashing?
YES
Close door.
Still Flashing
NO
NO
NO
1
Open control-voltage check.
GREY "H4-6" to "H4-3".
GREY "H4-1" to "H4-3".
This checks voltage on door switch coming into control and input to "K1" motor relay.
Check main power to dryer.
Check and replace inoperative coin drop.
If the problem still exists, refer to these other troubleshooting guides: "Electronic Control Has No Visible Display" or "Coins Ignored When Entered".
Still Flashing
If voltage is present, replace control.
Still Flashing
Check and replace inoperative wiring at door switch.
Still Flashing
Replace door switch.
NOTE:
This test is based on the assumption that the "START" button has been pressed.
Refer to Operation and Programming manuals to review the correct status the control should be in after the vend price has been satisfied and the "START" button has been pressed.
2
Does colon flash and "PUSH START" go off? Does drying or cool down display on the electronic control?
YES
Check voltage at electronic control BROWN "H4-4" to "H4-3", Is there voltage?
YES
After checking for correct wiring, replace motor.
NO
NO
Replace electronic control board.
D204S

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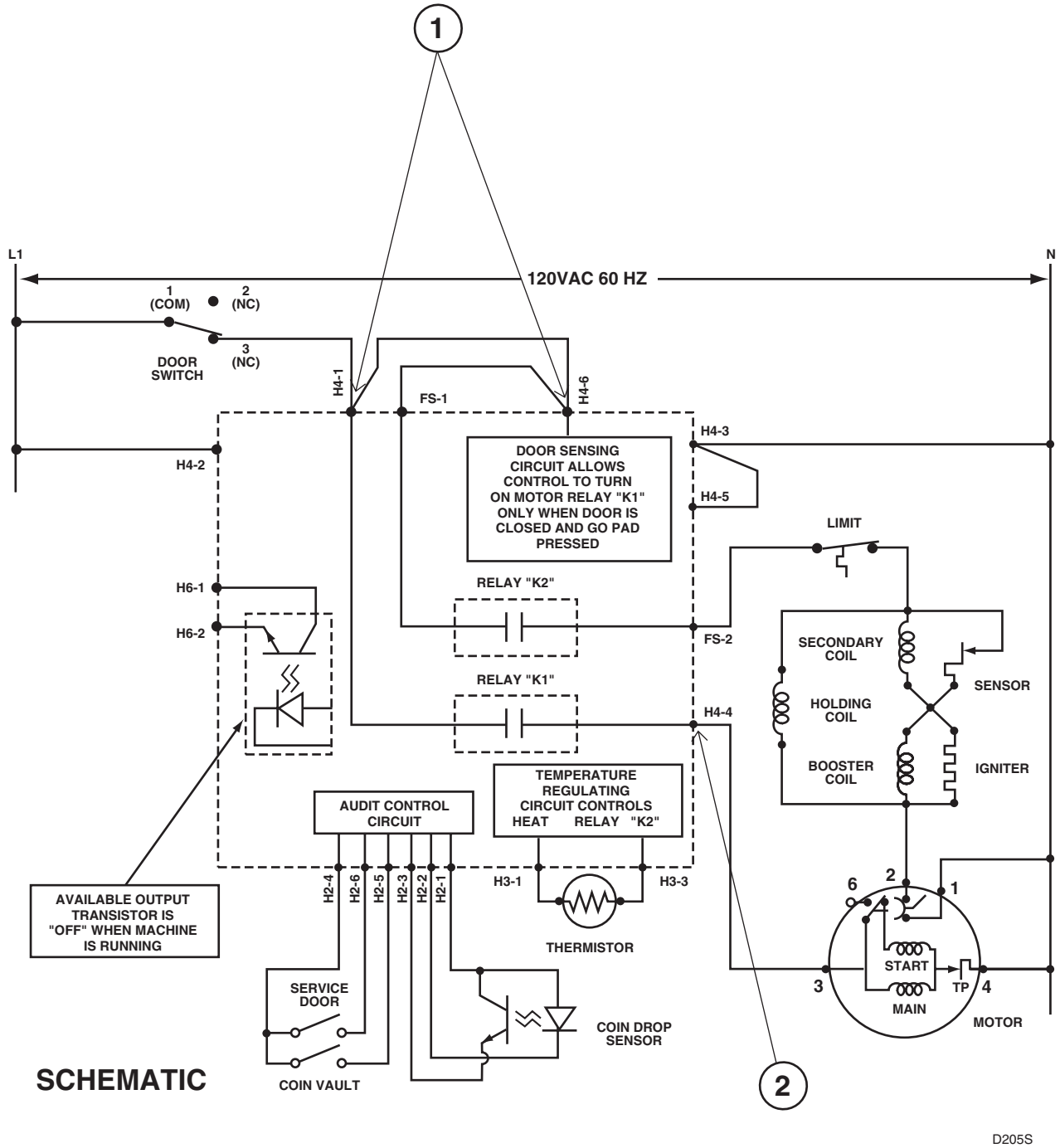
ELECTRONIC CONTROL GAS DRYER — NO MOTOR RUN — "DOOR OPEN" ANALYSIS



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Notes

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Troubleshooting

MDC Models – Dryer Control

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

60. ERROR CODE LISTING

OP	Open Thermistor Error.	This error code indicates a physical ìopenî in the thermistor circuit. Possible causes are: 1) thermistor, 2) wiring between control and thermistor, or 3) control.
SH	Shorted Thermistor Error	This error code indicates a ìshortî in the thermistor circuit. Possible causes are: 1) Shorted thermistor, 2) a short in the wiring between control and thermistor, or 3) control.
EC:19 (Card Reader Machines)	No Card Reader Communication	This error code indicates there is no card reader communication.The control and the reader cannot communicate. Check reader, control and harness. **NOTE: For all other Card Reader errors, consult the Card Reader manufacturer.**

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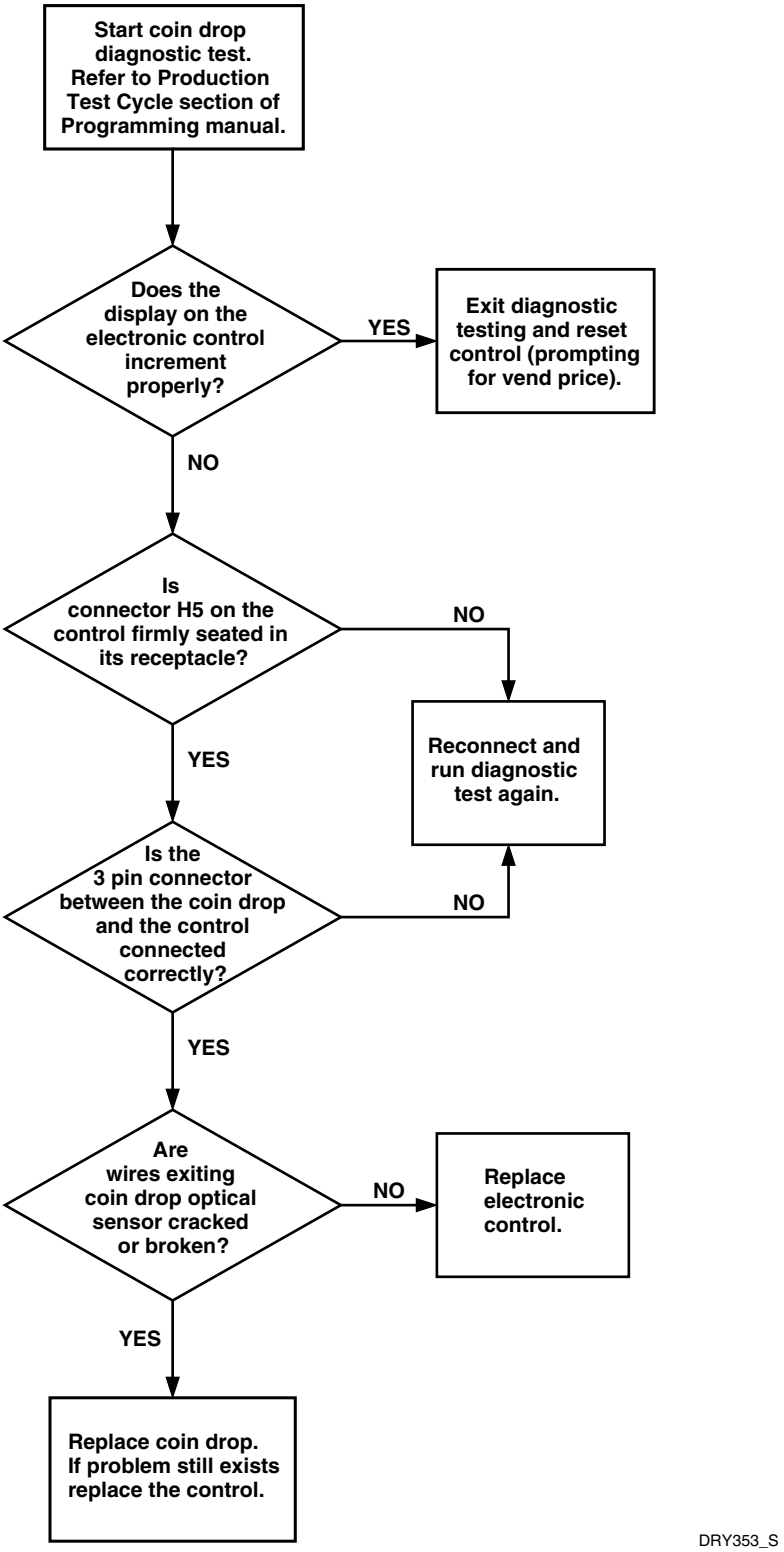
61. COINS IGNORED WHEN ENTERED


Start coin drop diagnostic test. Refer to Production Test Cycle section of Programming manual.
Does the display on the electronic control increment properly?
YES
Exit diagnostic testing and reset control (prompting for vend price).
NO
Is connector H5 on the control firmly seated in its receptacle?
NO
Reconnect and run diagnostic test again.
YES
Is the 3 pin connector between the coin drop and the control connected correctly?
NO
YES
Are wires exiting coin drop optical sensor cracked or broken?
NO
Replace electronic control.
YES
Replace coin drop. If problem still exists replace the control.
DRY353_S

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Notes

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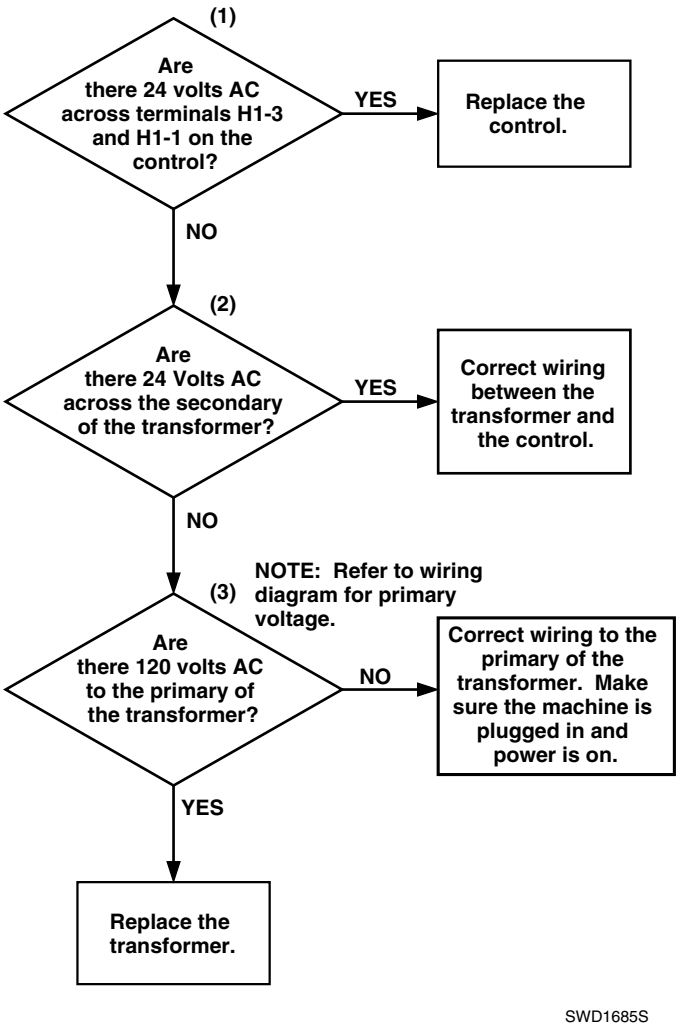
62. NO VISIBLE DISPLAY ON CONTROL – DRYER


(1)
Are there 24 volts AC across terminals H1-3 and H1-1 on the control?
YES
Replace the control.
NO
(2)
Are there 24 Volts AC across the secondary of the transformer?
YES
Correct wiring between the transformer and the control.
NO
(3)
NOTE: Refer to wiring diagram for primary voltage.
Are there 120 volts AC to the primary of the transformer?
NO
Correct wiring to the primary of the transformer. Make sure the machine is plugged in and power is on.
YES
Replace the transformer.
SWD1685S

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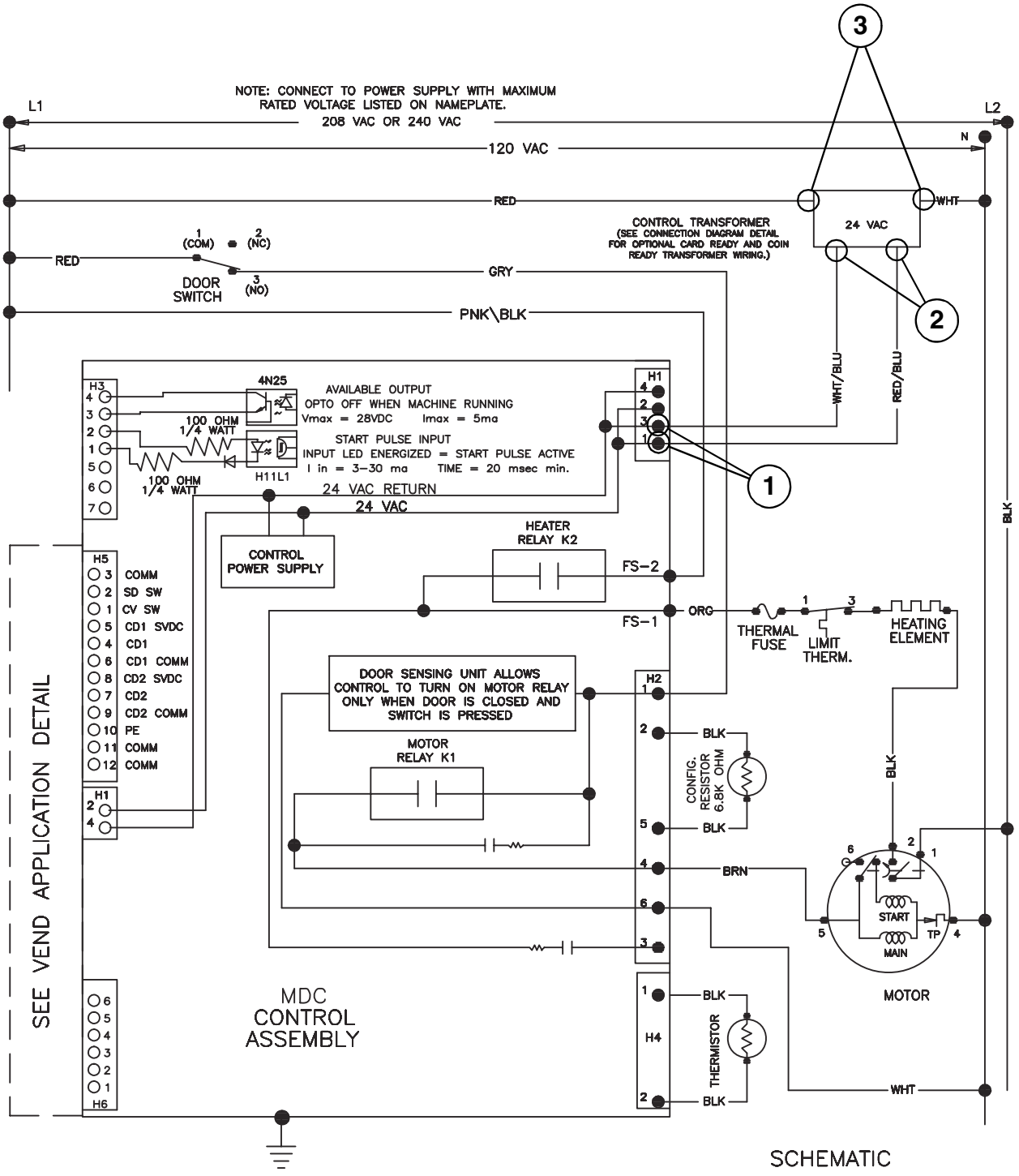
NO VISIBLE DISPLAY ON CONTROL – DRYER



SCHEMATIC

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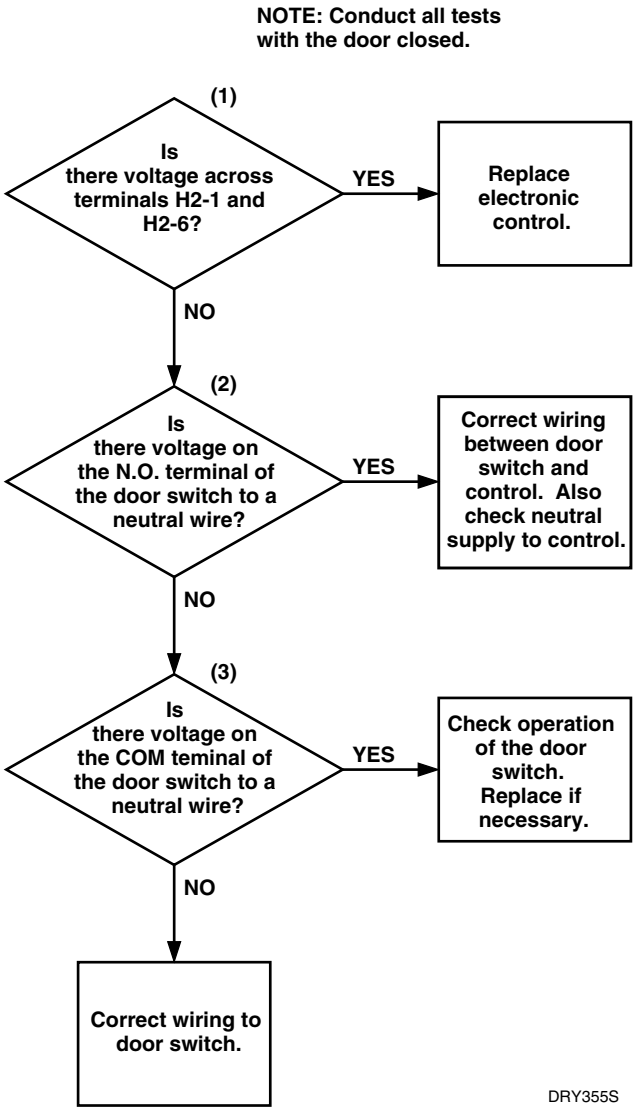
63. DOOR OPEN


NOTE: Conduct all tests with the door closed.
(1)
Is there voltage across terminals H2-1 and H2-6?
YES
Replace electronic control.
NO
(2)
Is there voltage on the N.O. terminal of the door switch to a neutral wire?
YES
Correct wiring between door switch and control. Also check neutral supply to control.
NO
(3)
Is there voltage on the COM teminal of the door switch to a neutral wire?
YES
Check operation of the door switch. Replace if necessary.
NO
Correct wiring to door switch.
DRY355S

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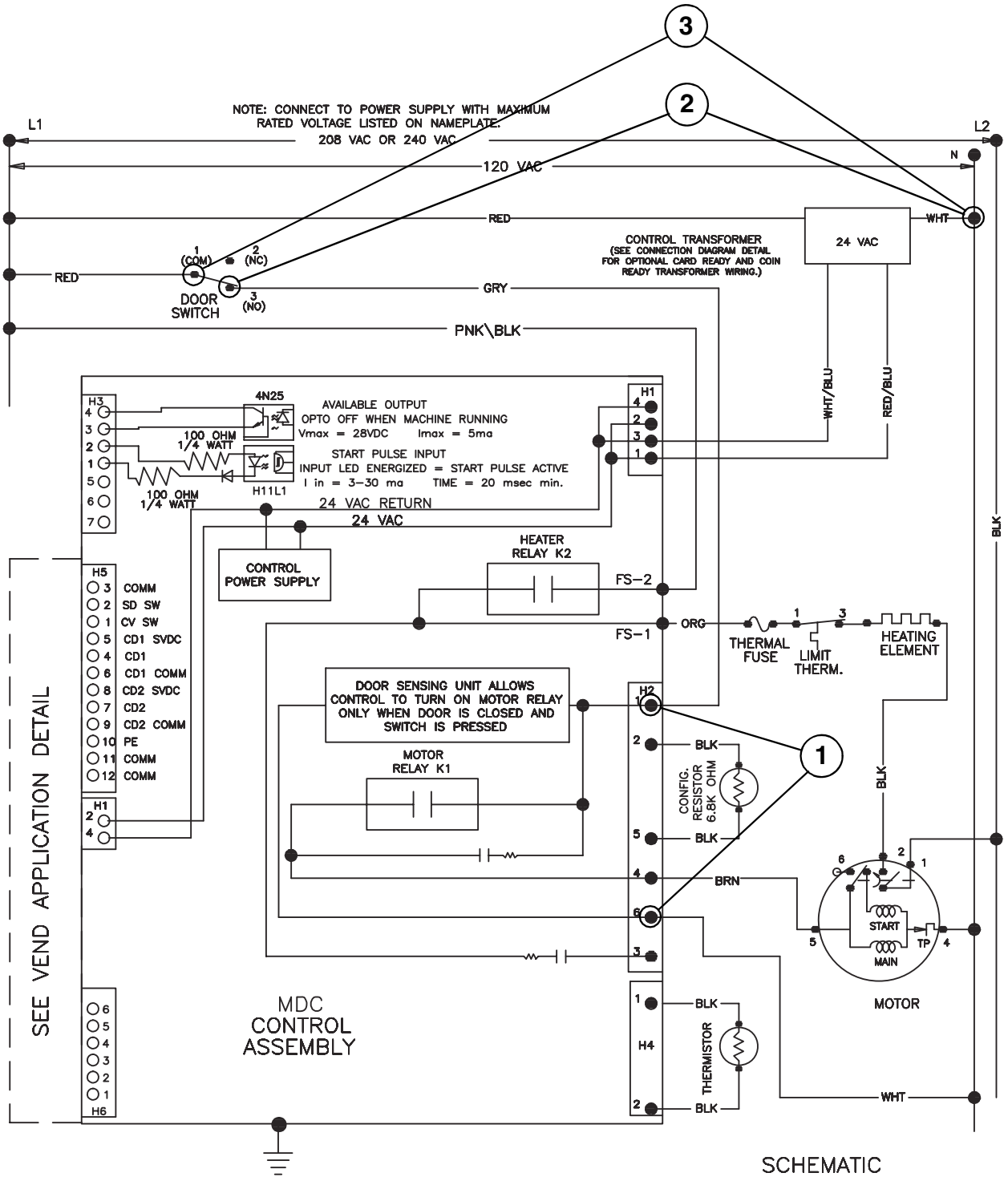
DOOR OPEN



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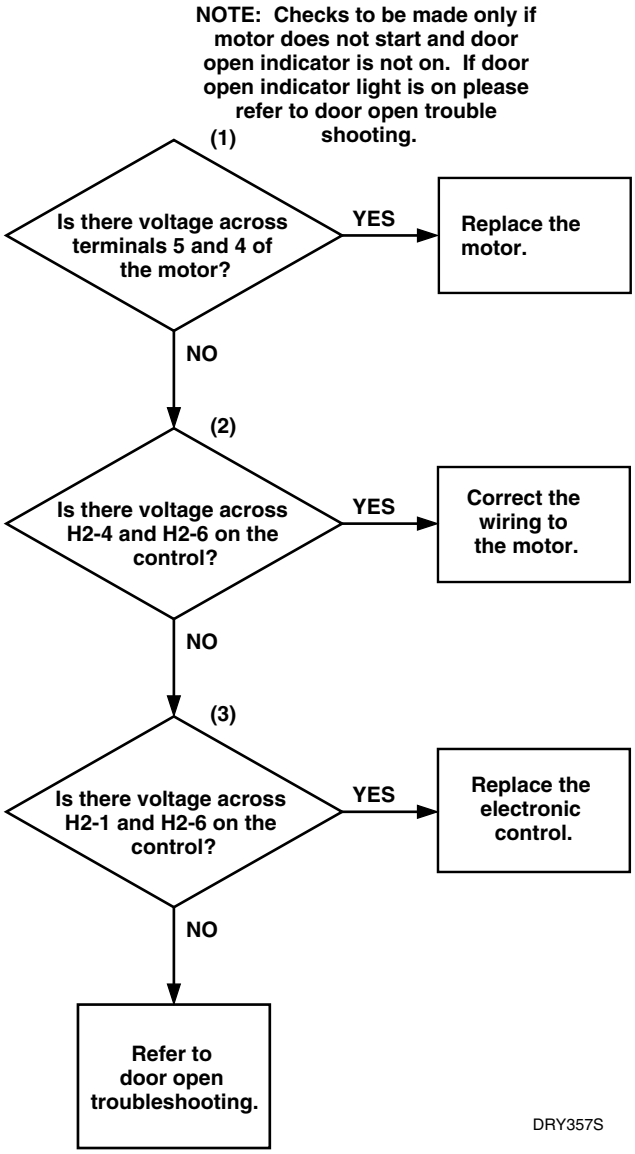
64. MOTOR WILL NOT START


NOTE: Checks to be made only if motor does not start and door open indicator is not on. If door open indicator light is on please refer to door open trouble shooting.
(1)
Is there voltage across terminals 5 and 4 of the motor?
YES
Replace the motor.
NO
(2)
Is there voltage across H2-4 and H2-6 on the control?
YES
Correct the wiring to the motor.
NO
(3)
Is there voltage across H2-1 and H2-6 on the control?
YES
Replace the electronic control.
NO
Refer to door open troubleshooting.
DRY357S

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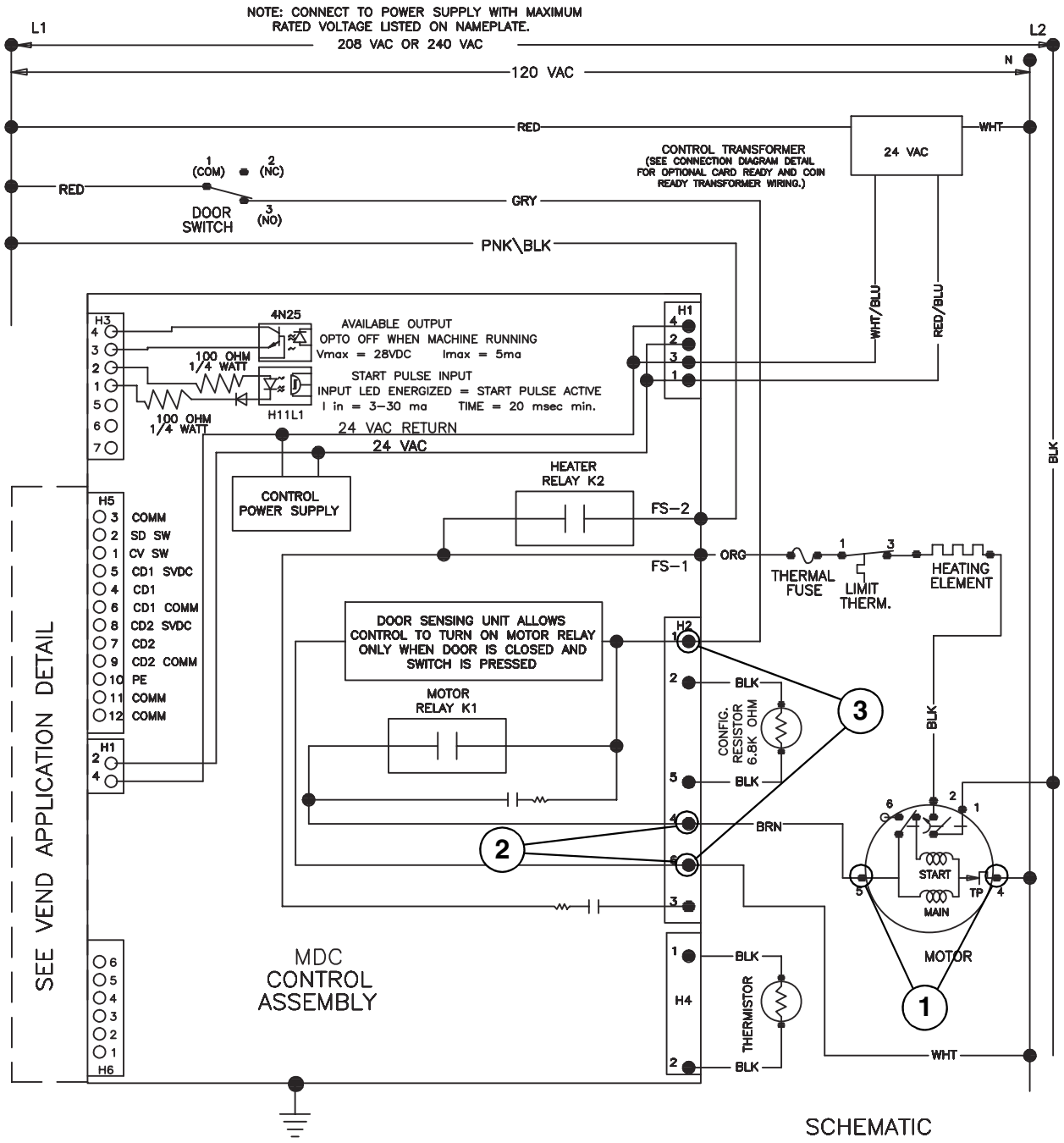
MOTOR WILL NOT START



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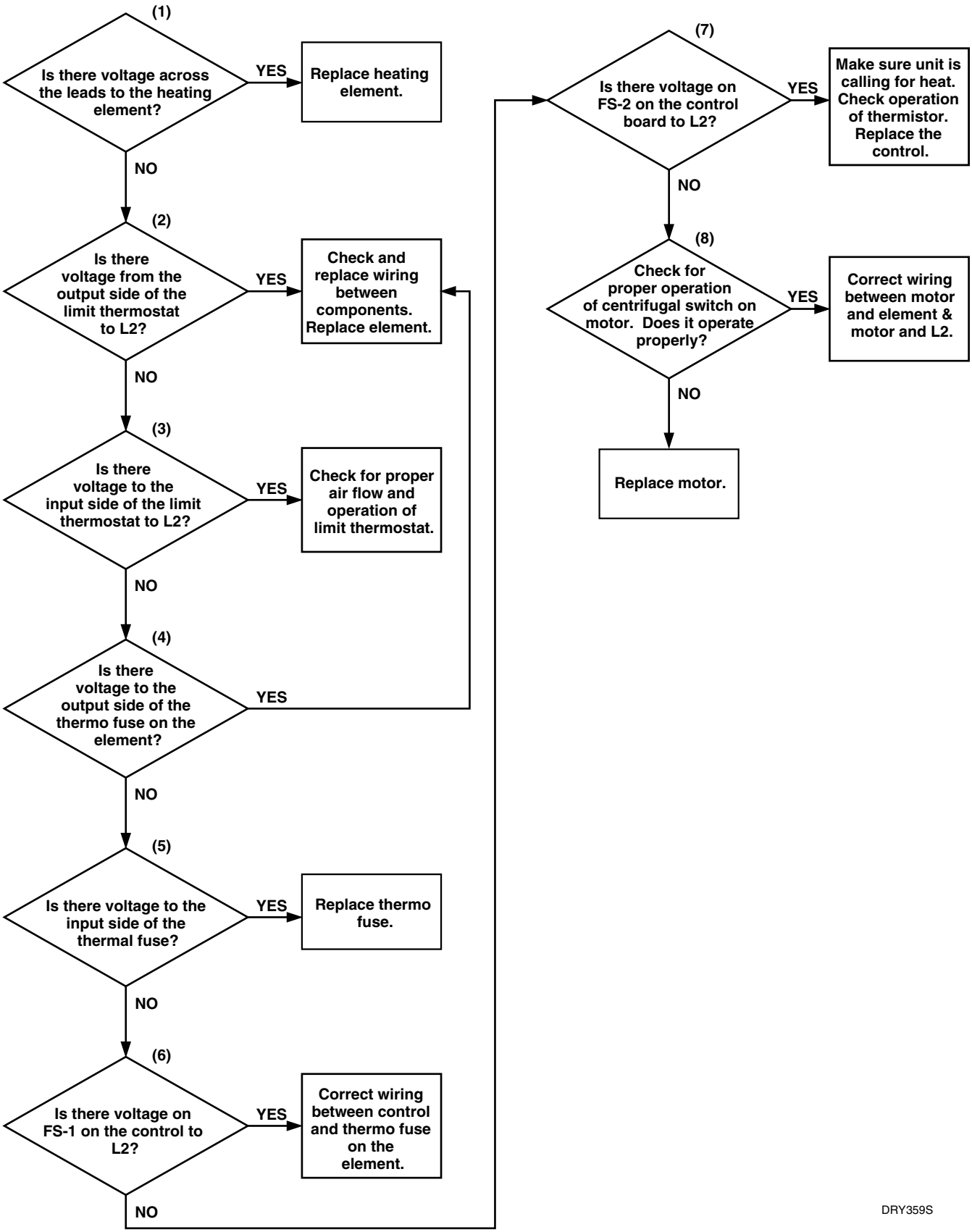
65. NO HEAT (ELECTRIC)


(1)
Is there voltage across the leads to the heating element?
YES
Replace heating element.
NO
(2)
Is there voltage from the output side of the limit thermostat to L2?
YES
Check and replace wiring between components. Replace element.
NO
(3)
Is there voltage to the input side of the limit thermostat to L2?
YES
Check for proper air flow and operation of limit thermostat.
NO
(4)
Is there voltage to the output side of the thermo fuse on the element?
YES
NO
(5)
Is there voltage to the input side of the thermal fuse?
YES
Replace thermo fuse.
NO
(6)
Is there voltage on FS-1 on the control to L2?
YES
Correct wiring between control and thermo fuse on the element.
NO
(7)
Is there voltage on FS-2 on the control board to L2?
YES
Make sure unit is calling for heat. Check operation of thermistor. Replace the control.
NO
(8)
Check for proper operation of centrifugal switch on motor. Does it operate properly?
YES
Correct wiring between motor and element & motor and L2.
NO
Replace motor.
DRY359S

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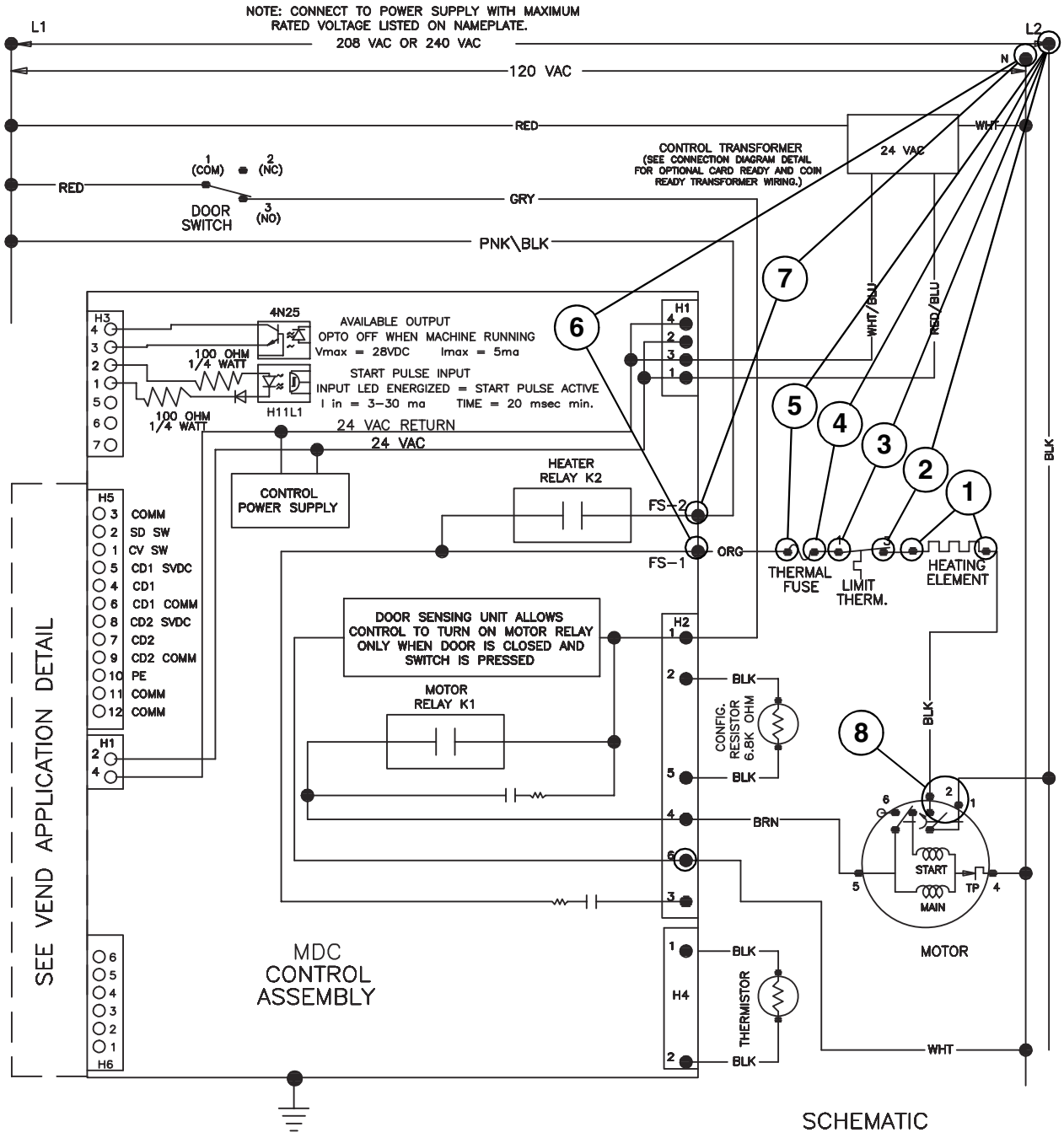
NO HEAT (ELECTRIC)



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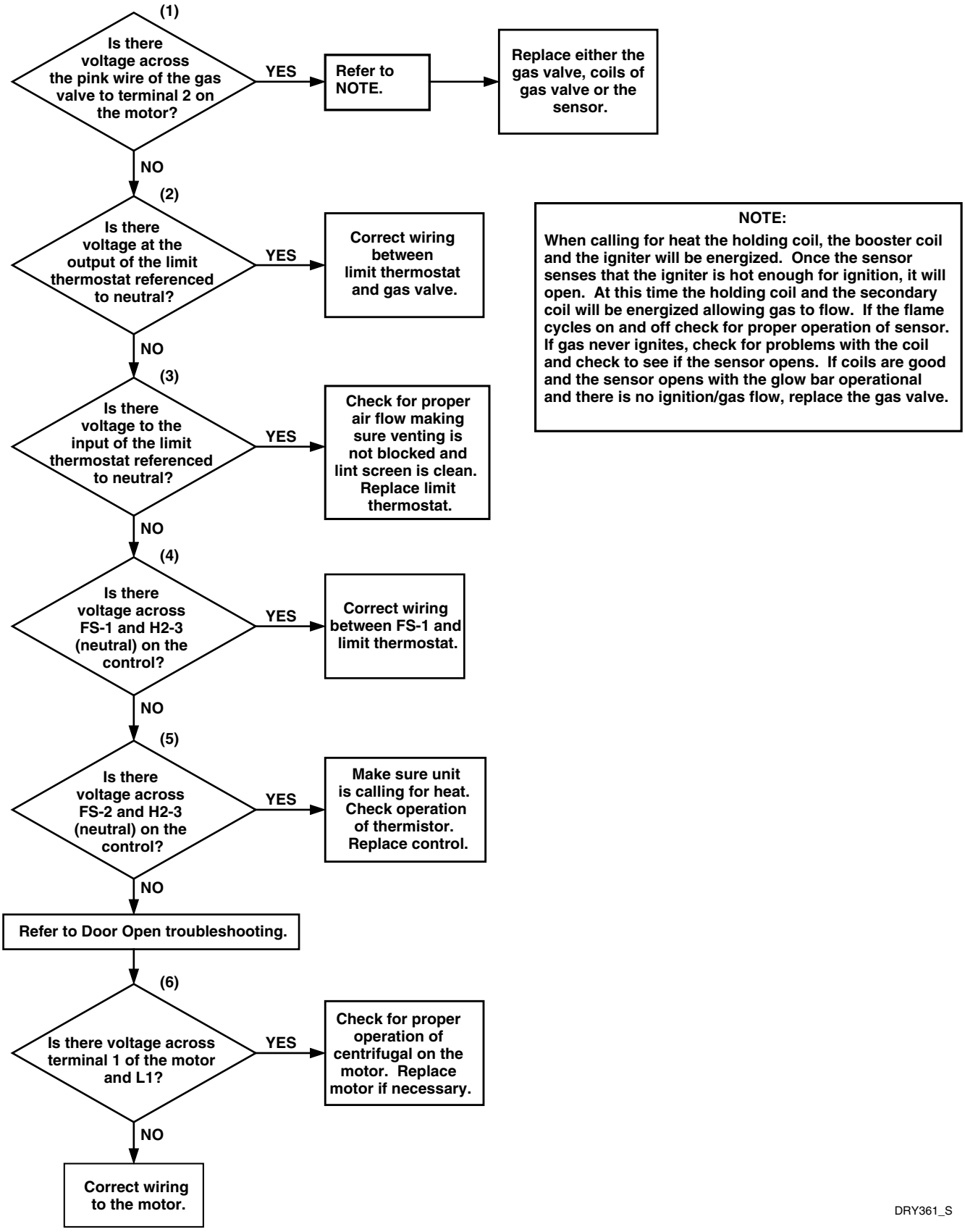
66. NO HEAT (GAS)


(1)
Is there voltage across the pink wire of the gas valve to terminal 2 on the motor?
YES
Refer to NOTE.
Replace either the gas valve, coils of gas valve or the sensor.
NO
(2)
Is there voltage at the output of the limit thermostat referenced to neutral?
YES
Correct wiring between limit thermostat and gas valve.
NO
(3)
Is there voltage to the input of the limit thermostat referenced to neutral?
YES
Check for proper air flow making sure venting is not blocked and lint screen is clean. Replace limit thermostat.
NO
(4)
Is there voltage across FS-1 and H2-3 (neutral) on the control?
YES
Correct wiring between FS-1 and limit thermostat.
NO
(5)
Is there voltage across FS-2 and H2-3 (neutral) on the control?
YES
Make sure unit is calling for heat. Check operation of thermistor. Replace control.
NO
Refer to Door Open troubleshooting.
(6)
Is there voltage across terminal 1 of the motor and L1?
YES
Check for proper operation of centrifugal on the motor. Replace motor if necessary.
NO
Correct wiring to the motor.
NOTE:
When calling for heat the holding coil, the booster coil and the igniter will be energized. Once the sensor senses that the igniter is hot enough for ignition, it will open. At this time the holding coil and the secondary coil will be energized allowing gas to flow. If the flame cycles on and off check for proper operation of sensor. If gas never ignites, check for problems with the coil and check to see if the sensor opens. If coils are good and the sensor opens with the glow bar operational and there is no ignition/gas flow, replace the gas valve.
DRY361_S

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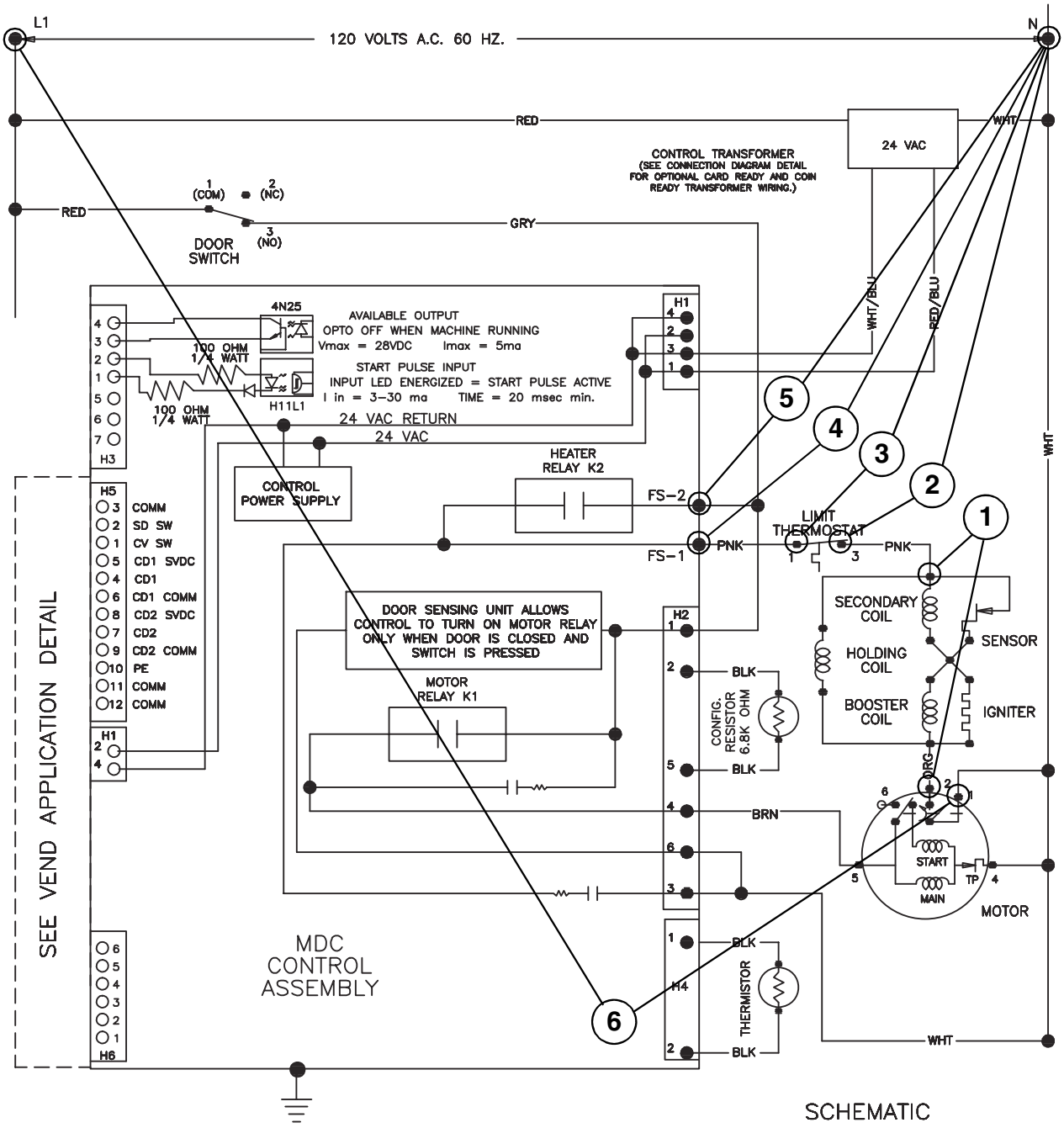
NO HEAT (GAS)



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Notes

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Troubleshooting

NetMaster Models – Dryer Control

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

67. ERROR CODE LISTING

Display Information	Description	Cause/ Corrective Action
EI:01	Transmission Failure	Communication failure. Re-aim Micro-Wand and try again.
EI:02	Device Timeout	Communication failure. Re-aim Micro-Wand and try again.
EI:03	Invalid Command Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:04	Expecting Upload Request	Communication failure. Re-aim Micro-Wand and try again.
EI:05	Invalid or Out-of-Range Data	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:06	Invalid Data Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:07	Error Writing to RTC	Control failure. Replace control.
EI:08	Error Writing to EEPROM	Control failure. Replace control.
EI:09	CRC-16 Error	Communication failure. Re-aim Micro-Wand and try again.
EI:0A	Invalid Machine Type	Incorrect machine type. Before downloading, ensure data is for current machine type.
EI:0F	Invalid Wakeup or Infra-red Disabled	Communication failure or infra-red is disabled. Manually enable infra-red on control or re-aim Micro-Wand and try again.
EC:00	General Communication Error	Communication failure. Try card again.
EC:02	Timeout Error	Communication failure. Try card again.
EC:03	Invalid Command Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EC:05	Invalid or Out-of-Range Data	Incorrect machine type. Before downloading, ensure data is for current machine type.
EC:06	Invalid Data Code	Incorrect machine type. Before downloading, ensure data is for current machine type.
EC:09	Corrupted Data Error	Communication error. Try card again.

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Display Information	Description	Cause/ Corrective Action
EC:0A	Invalid Machine Type	Incorrect machine type. Before downloading, ensure data is for current machine type.
EC:19	No Card Reader Communication	Communication failure. Power down, power up and try again. If error persists, replace control or card reader.
EC:20	Unreadable Card	Faulty card or dirty contact. Clean chip on card or card reader contacts. Try card again. If error persists, card may be faulty.
EC:21	Security ID Mismatch	Incorrect card. Use card with correct security code.
EC:22	Site Code Mismatch	Incorrect card. Use card with correct site code.
EC:23	Card Maximum Value Exceeded	Value on card over max. Use a card which does not exceed maximum value.
EC:24	Insufficient Memory on Card	Card memory is full. Download card contents to PC and clear card for re-use.
EC:25	Card Reader Malfunction	Faulty card reader. Replace card reader.
EC:26	Card Write Error	Try card again. If error persists, card may be faulty.
EC:27	Diagnostic Test Card Write Failure	Faulty card reader. Replace card reader.
EC:28	Diagnostic Test Card Read Failure	Faulty card reader. Replace card reader.
EC:29	Diagnostic Test Memory Test Failure	Faulty card reader. Replace card reader.
EC:2A	Diagnostic Test Card Interface Failure	Faulty card reader. Replace card reader.
EC:2b	Diagnostic Test Flash Checksum Failure	Faulty card reader. Replace card reader.
EC:2C	Biberon or Non-biberon Device Failure	Faulty card reader. Replace card reader.
EC:2d	Firmware Update Failed, S/W (Software) Intact	Firmware load failed. Replace card reader.
EC:2E	Firmware Update Failed, S/W Not Intact	Faulty firmware in reader. Replace card reader.
EC:2F	Firmware Updated, S/W Not Intact	Faulty firmware in reader. Replace card reader.
EC:30	Timeout Error	Replace card reader.
EC:31	Hotlisted Card Inserted Into Reader	Card hotlisted. Control will destroy card.
EC:50	Loyalty Purse Read Error	Try card again. If error persists, card may be faulty.
EC:56	Loyalty Purse Write Error	Try card again. If error persists, card may be faulty.
Right most DP (decimal point) Lit	Network Communication Error	Communication problem. Wait for 1.5 minutes for error to clear. If error doesn't clear, power-down and power-up the machine. If error persists, replace control or network board.
Alrm	Break-in Alarm Error	Service the door or coin vault switches.
OFF	Break-in Alarm Shutdown Error	Service the door or coin vault switches.

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Display Information	Description	Cause/ Corrective Action
E:OP	Open Temperature Sensor Error	Check sensor for proper ohms reading. If open, replace sensor.
E:SH	Shorted Temperature Sensor Error	Check sensor for proper ohms reading. If shorted, replace sensor.
Err	Coin Error	Invalid coin pulse or inoperative coin sensor. Check coin drop area and remove obstructions. If error persists, tampering may have occurred. Evaluate security procedures.
OP	Open Thermistor	Check sensor for proper ohms reading. If open, replace thermistor.
SH	Shorted Thermistor	Check sensor for proper ohms reading. If shorted, replace thermistor.

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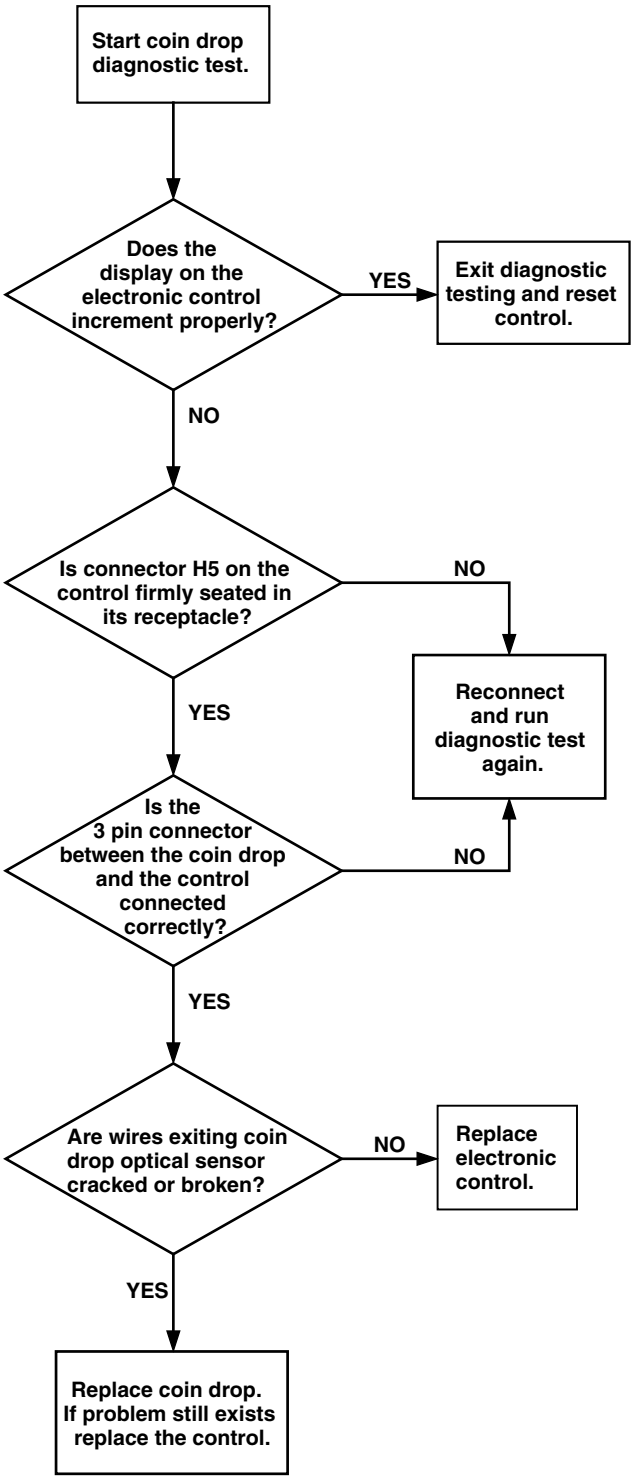
68. COINS IGNORED WHEN ENTERED


Start coin drop diagnostic test.
Does the display on the electronic control increment properly?
YES
Exit diagnostic testing and reset control.
NO
Is connector H5 on the control firmly seated in its receptacle?
NO
Reconnect and run diagnostic test again.
YES
Is the 3 pin connector between the coin drop and the control connected correctly?
NO
YES
Are wires exiting coin drop optical sensor cracked or broken?
NO
Replace electronic control.
YES
Replace coin drop. If problem still exists replace the control.

DRY353S

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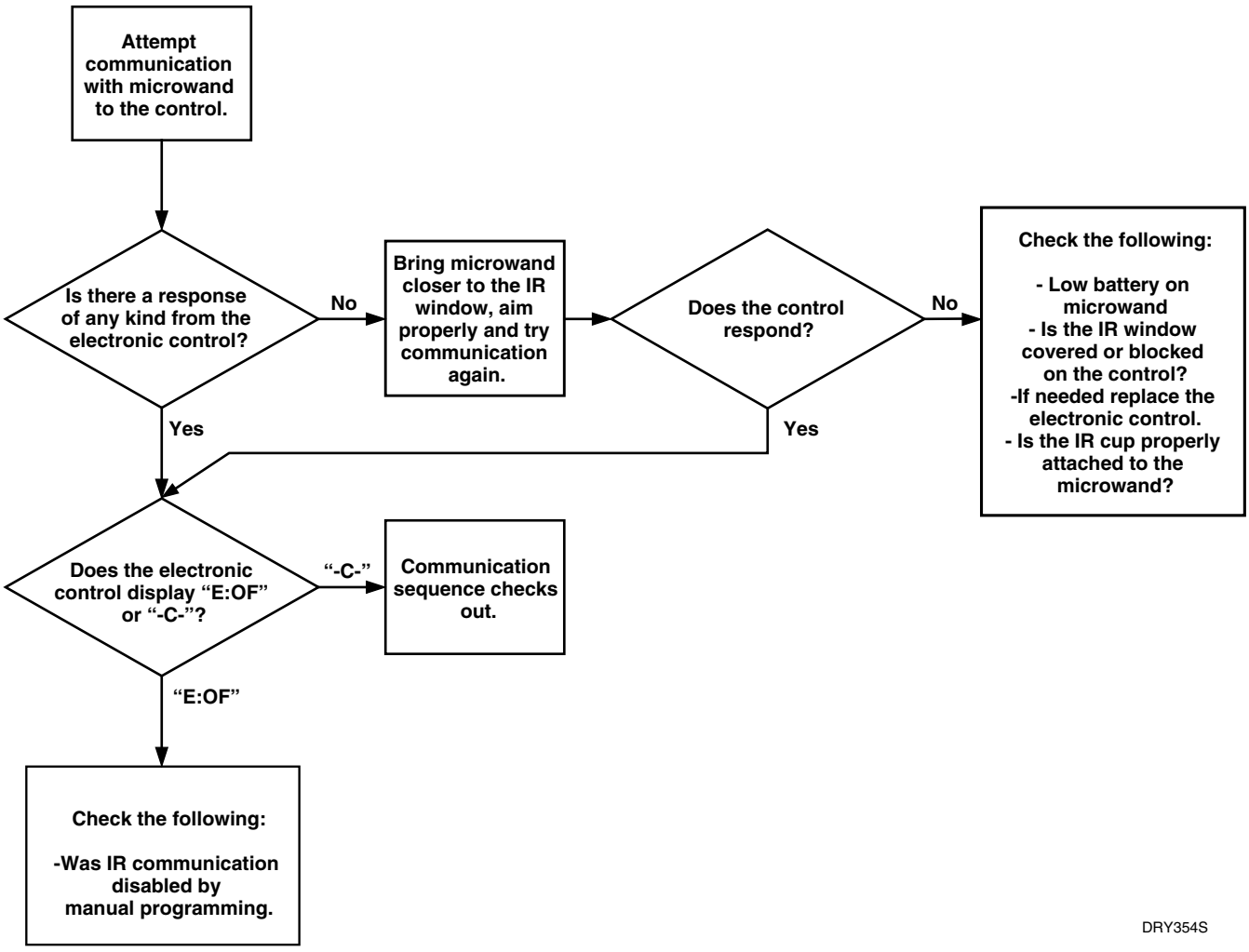
69. NO IR COMMUNICATION


Attempt communication with microwand to the control.
Is there a response of any kind from the electronic control?
No
Bring microwand closer to the IR window, aim properly and try communication again.
Does the control respond?
No
Check the following:
- Low battery on microwand
- Is the IR window covered or blocked on the control?
-If needed replace the electronic control.
- Is the IR cup properly attached to the microwand?
Yes
Yes
Does the electronic control display "E:OF" or "-C-"?
"-C-"
Communication sequence checks out.
"E:OF"
Check the following:
-Was IR communication disabled by manual programming.
DRY354S

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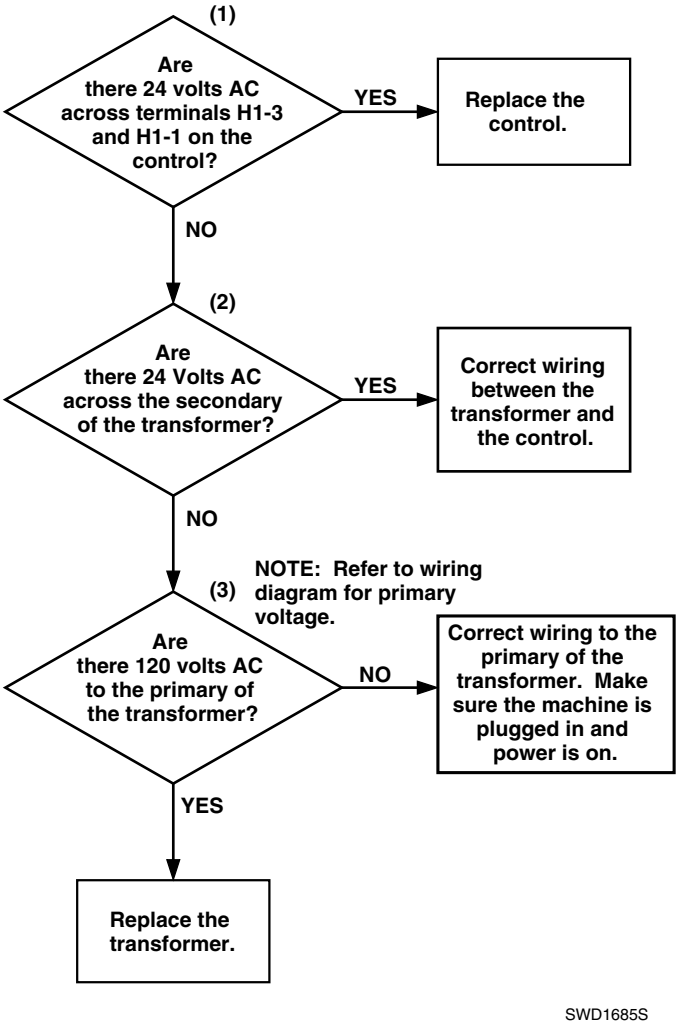
70. NO DISPLAY


(1)
Are there 24 volts AC across terminals H1-3 and H1-1 on the control?
YES
Replace the control.
NO
(2)
Are there 24 Volts AC across the secondary of the transformer?
YES
Correct wiring between the transformer and the control.
NO
(3)
NOTE: Refer to wiring diagram for primary voltage.
Are there 120 volts AC to the primary of the transformer?
NO
Correct wiring to the primary of the transformer. Make sure the machine is plugged in and power is on.
YES
Replace the transformer.
SWD1685S

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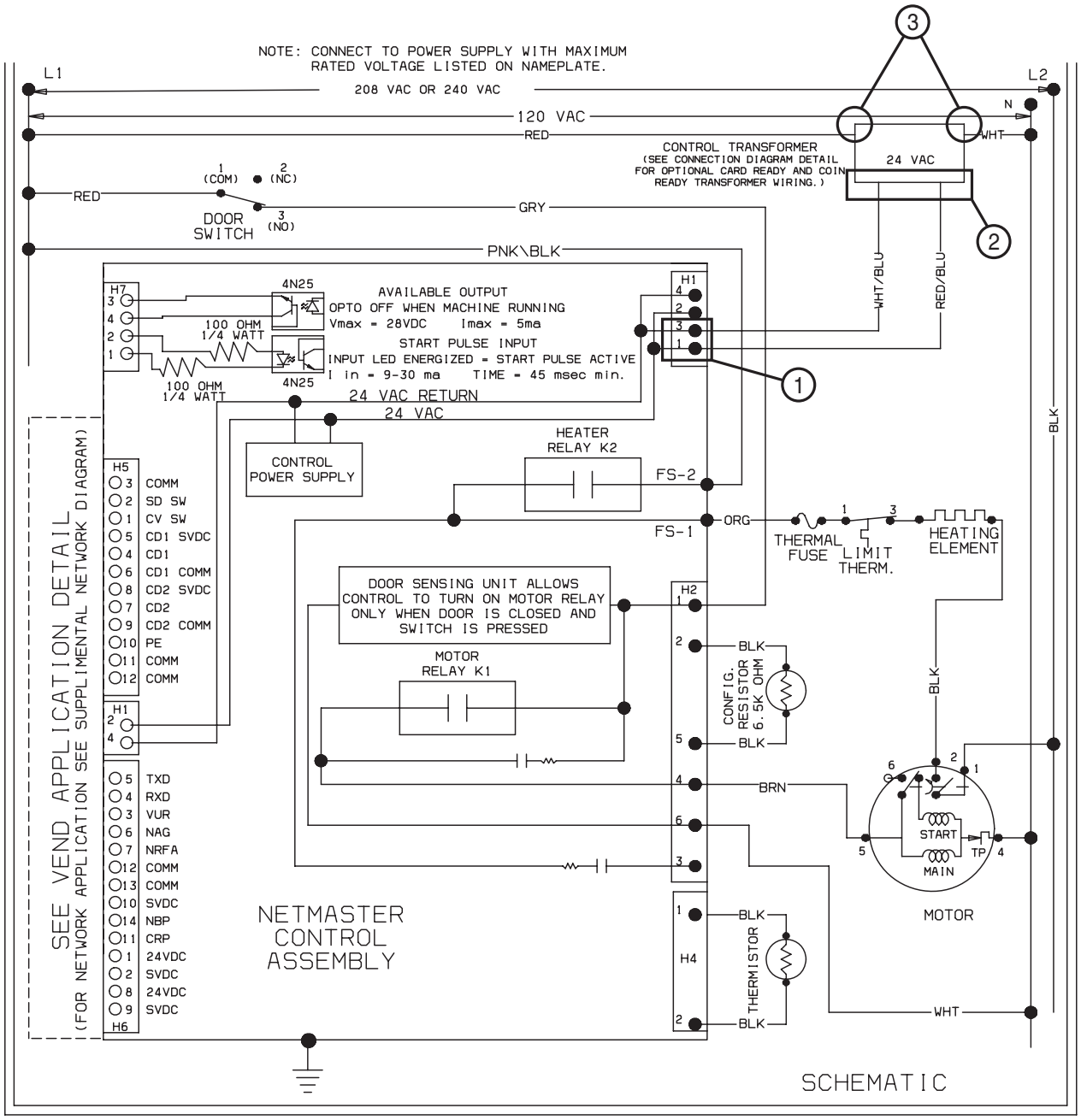
NO DISPLAY



DRY352S_

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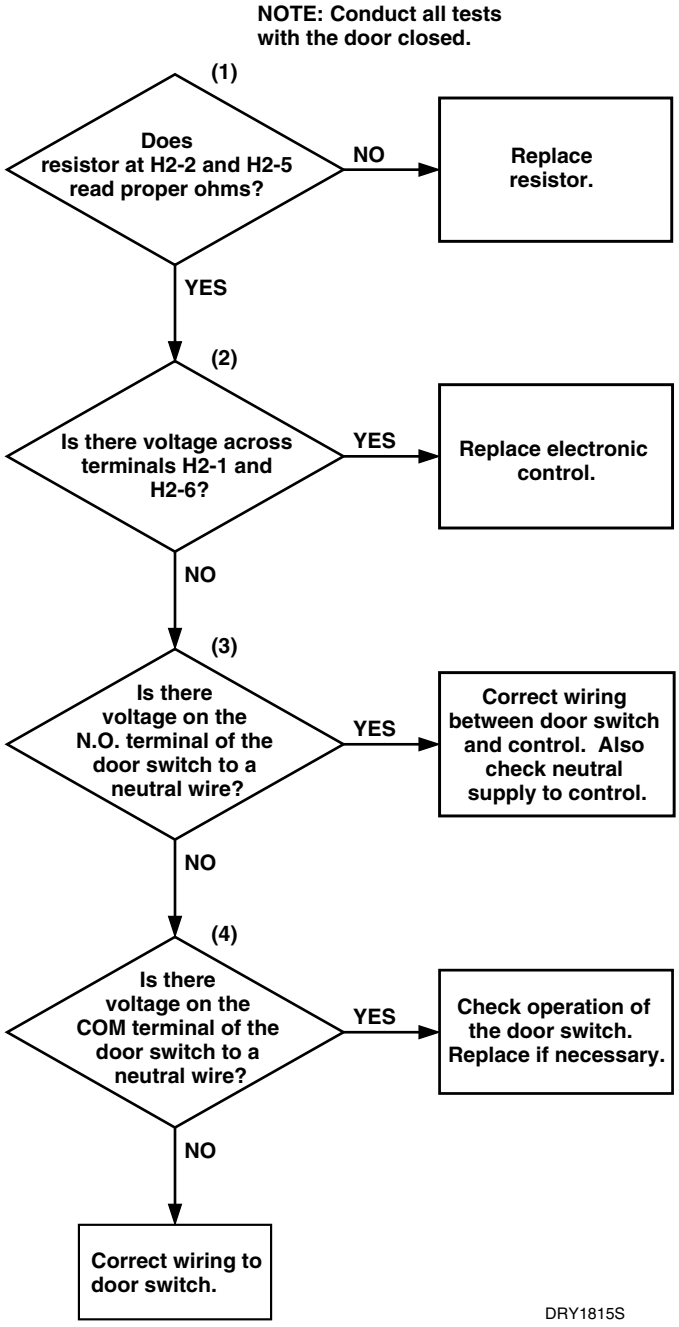
71. DOOR OPEN


NOTE: Conduct all tests with the door closed.
(1)
Does resistor at H2-2 and H2-5 read proper ohms?
NO
Replace resistor.
YES
(2)
Is there voltage across terminals H2-1 and H2-6?
YES
Replace electronic control.
NO
(3)
Is there voltage on the N.O. terminal of the door switch to a neutral wire?
YES
Correct wiring between door switch and control. Also check neutral supply to control.
NO
(4)
Is there voltage on the COM terminal of the door switch to a neutral wire?
YES
Check operation of the door switch. Replace if necessary.
NO
Correct wiring to door switch.
DRY1815S

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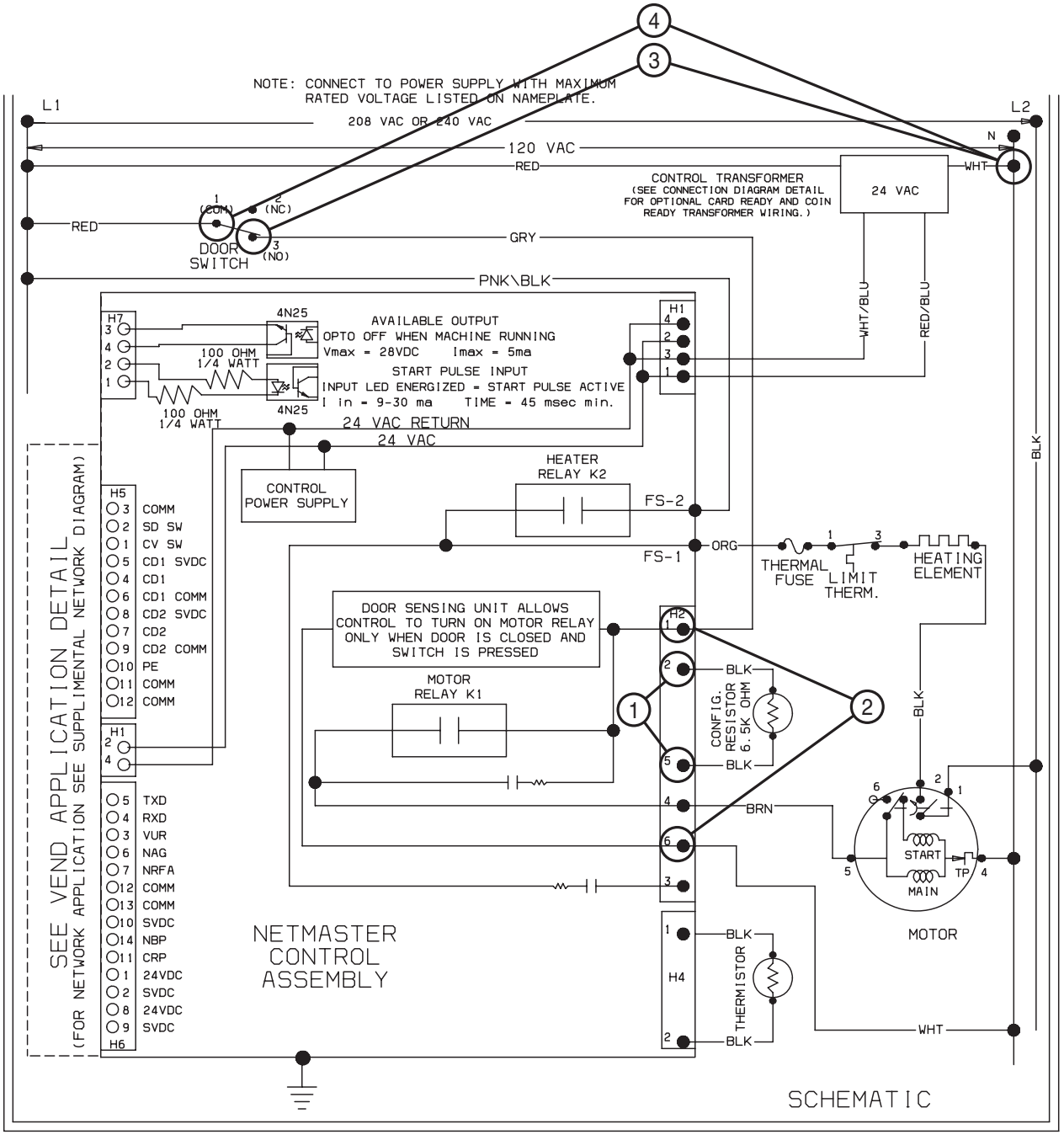
DOOR OPEN



DRY1816S

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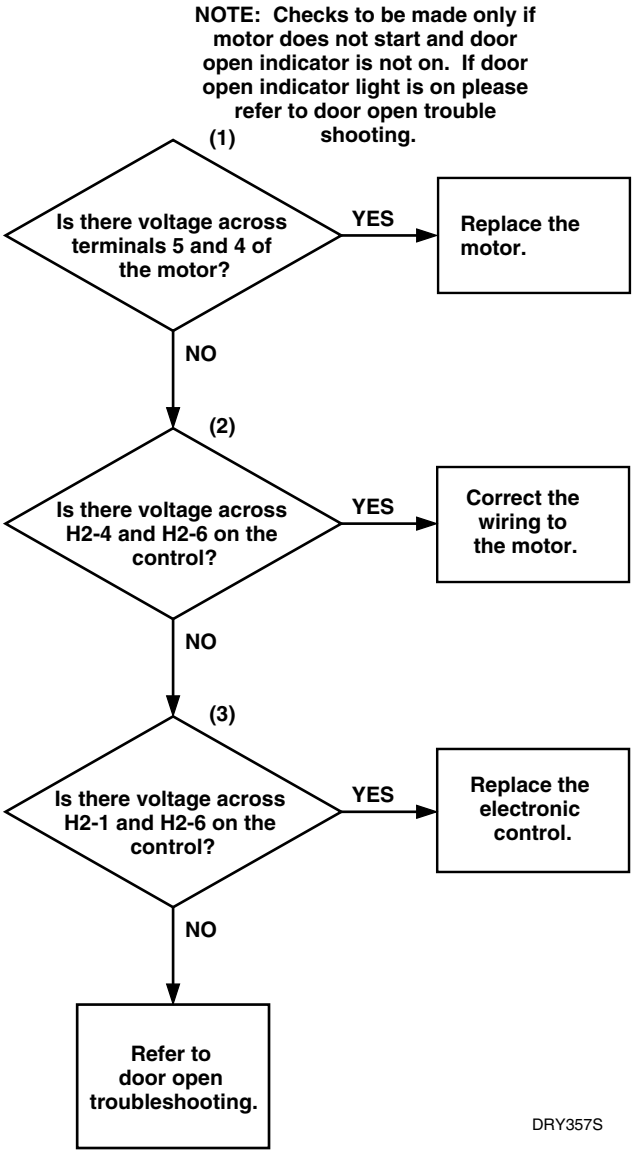
72. MOTOR WILL NOT START


NOTE: Checks to be made only if motor does not start and door open indicator is not on. If door open indicator light is on please refer to door open trouble shooting.
(1)
Is there voltage across terminals 5 and 4 of the motor?
YES
Replace the motor.
NO
(2)
Is there voltage across H2-4 and H2-6 on the control?
YES
Correct the wiring to the motor.
NO
(3)
Is there voltage across H2-1 and H2-6 on the control?
YES
Replace the electronic control.
NO
Refer to door open troubleshooting.
DRY357S

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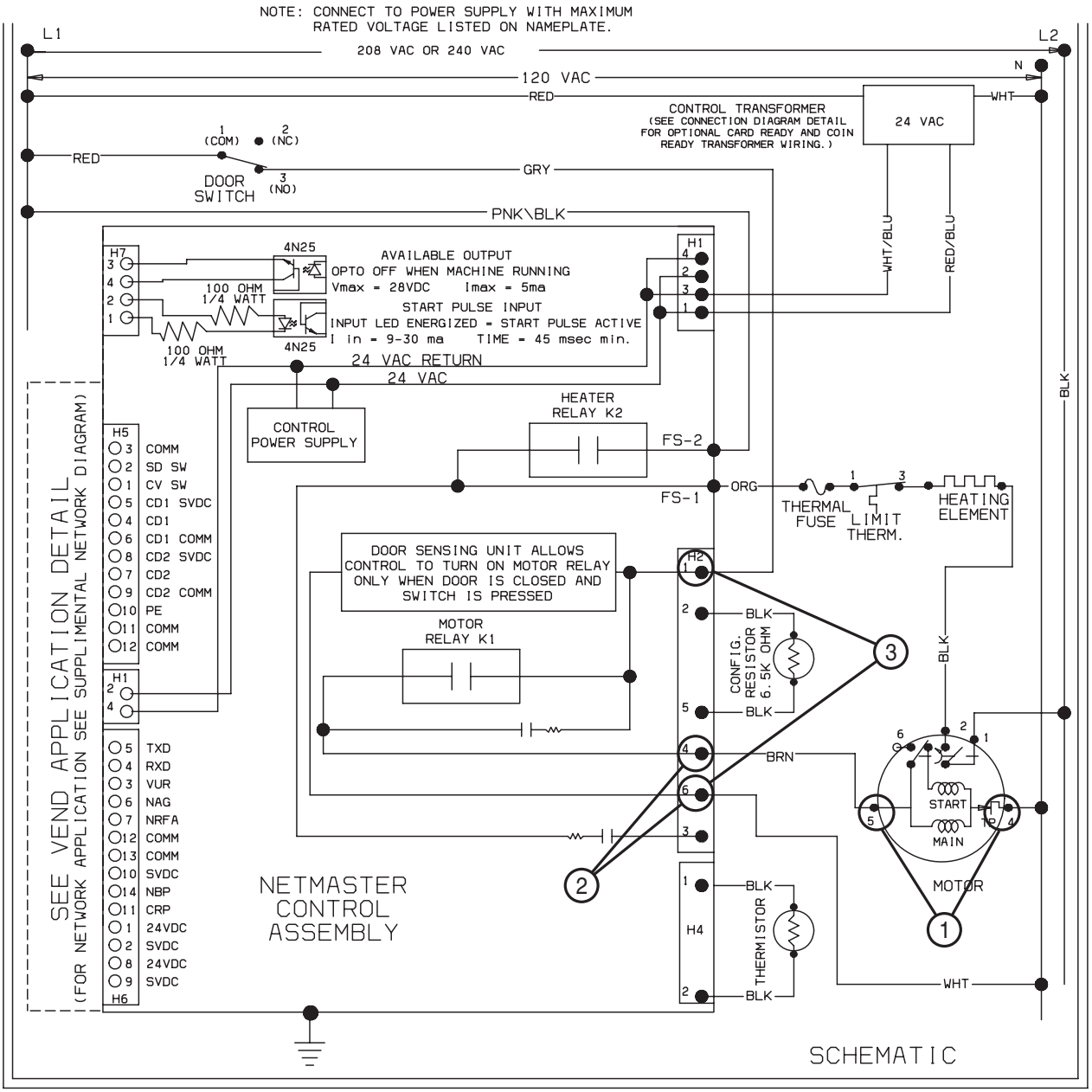
MOTOR WILL NOT START



DRY358S_

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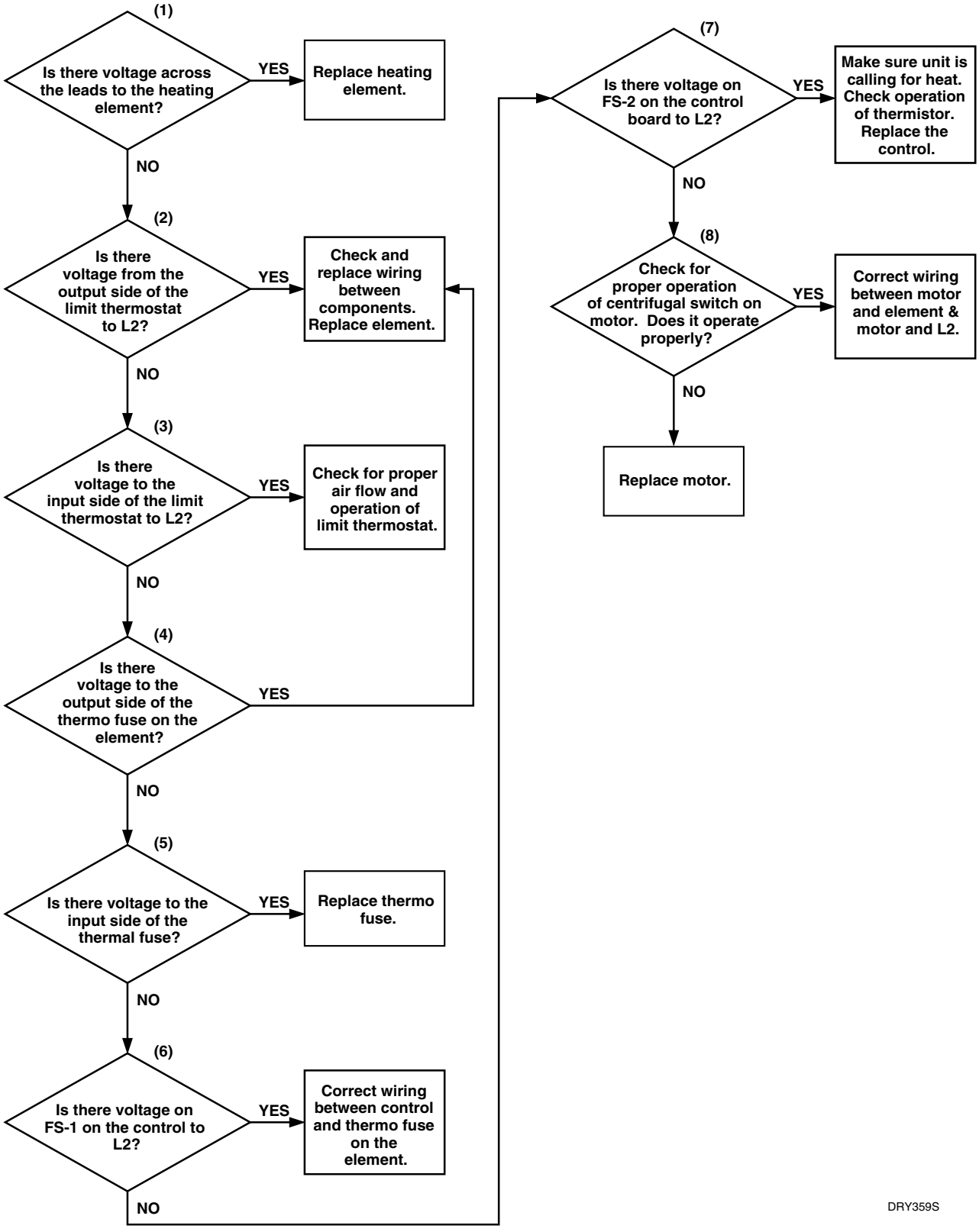
73. NO HEAT (ELECTRIC)


(1)
Is there voltage across the leads to the heating element?
YES
Replace heating element.
NO
(2)
Is there voltage from the output side of the limit thermostat to L2?
YES
Check and replace wiring between components. Replace element.
NO
(3)
Is there voltage to the input side of the limit thermostat to L2?
YES
Check for proper air flow and operation of limit thermostat.
NO
(4)
Is there voltage to the output side of the thermo fuse on the element?
YES
NO
(5)
Is there voltage to the input side of the thermal fuse?
YES
Replace thermo fuse.
NO
(6)
Is there voltage on FS-1 on the control to L2?
YES
Correct wiring between control and thermo fuse on the element.
NO
(7)
Is there voltage on FS-2 on the control board to L2?
YES
Make sure unit is calling for heat. Check operation of thermistor. Replace the control.
NO
(8)
Check for proper operation of centrifugal switch on motor. Does it operate properly?
YES
Correct wiring between motor and element & motor and L2.
NO
Replace motor.
DRY359S

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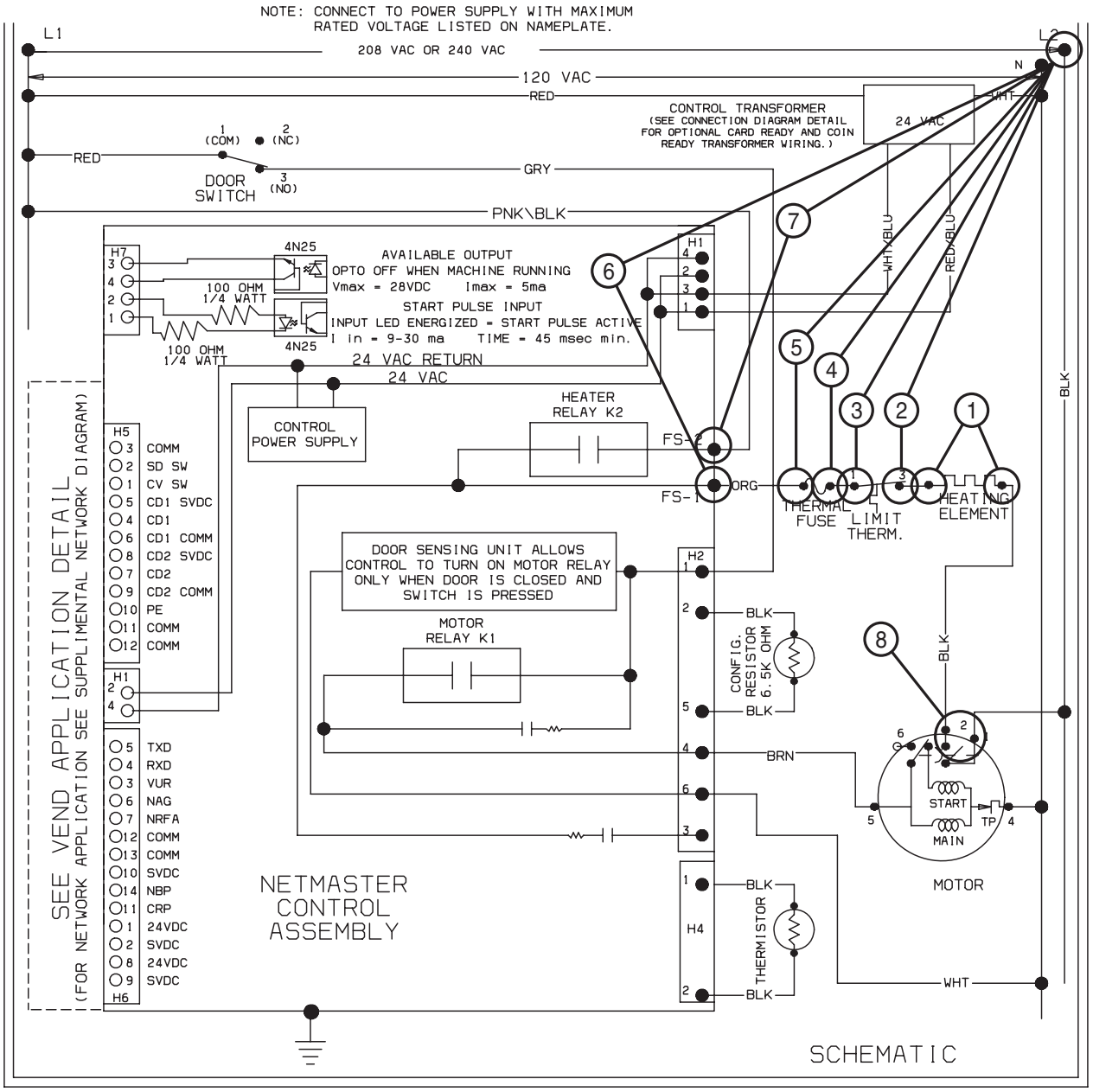
NO HEAT (ELECTRIC)



DRY360S_

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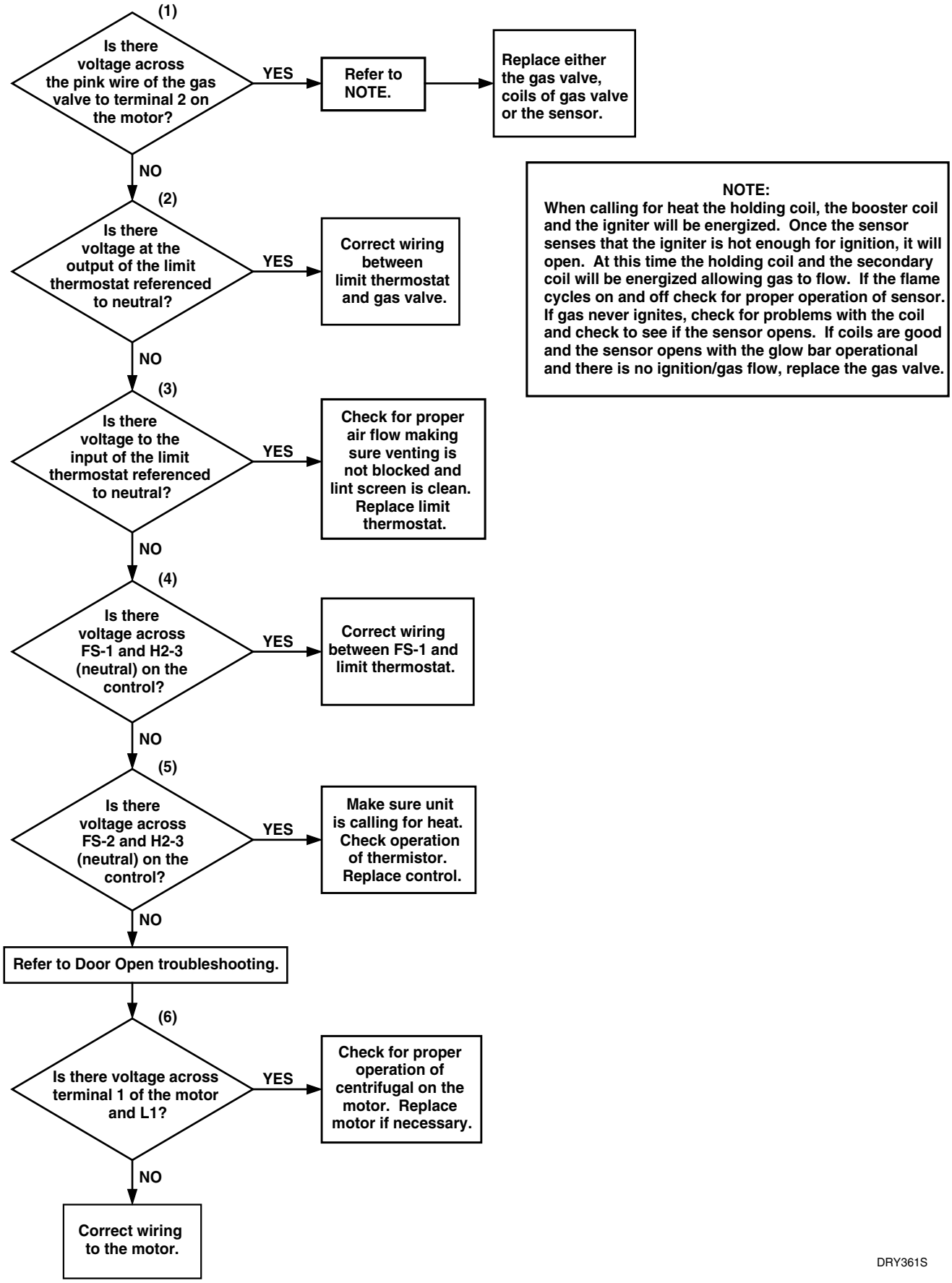
74. NO HEAT (GAS)


(1)
Is there voltage across the pink wire of the gas valve to terminal 2 on the motor?
YES
Refer to NOTE.
Replace either the gas valve, coils of gas valve or the sensor.
NO
(2)
Is there voltage at the output of the limit thermostat referenced to neutral?
YES
Correct wiring between limit thermostat and gas valve.
NO
(3)
Is there voltage to the input of the limit thermostat referenced to neutral?
YES
Check for proper air flow making sure venting is not blocked and lint screen is clean. Replace limit thermostat.
NO
(4)
Is there voltage across FS-1 and H2-3 (neutral) on the control?
YES
Correct wiring between FS-1 and limit thermostat.
NO
(5)
Is there voltage across FS-2 and H2-3 (neutral) on the control?
YES
Make sure unit is calling for heat. Check operation of thermistor. Replace control.
NO
Refer to Door Open troubleshooting.
(6)
Is there voltage across terminal 1 of the motor and L1?
YES
Check for proper operation of centrifugal on the motor. Replace motor if necessary.
NO
Correct wiring to the motor.
NOTE:
When calling for heat the holding coil, the booster coil and the igniter will be energized. Once the sensor senses that the igniter is hot enough for ignition, it will open. At this time the holding coil and the secondary coil will be energized allowing gas to flow. If the flame cycles on and off check for proper operation of sensor. If gas never ignites, check for problems with the coil and check to see if the sensor opens. If coils are good and the sensor opens with the glow bar operational and there is no ignition/gas flow, replace the gas valve.
DRY361S

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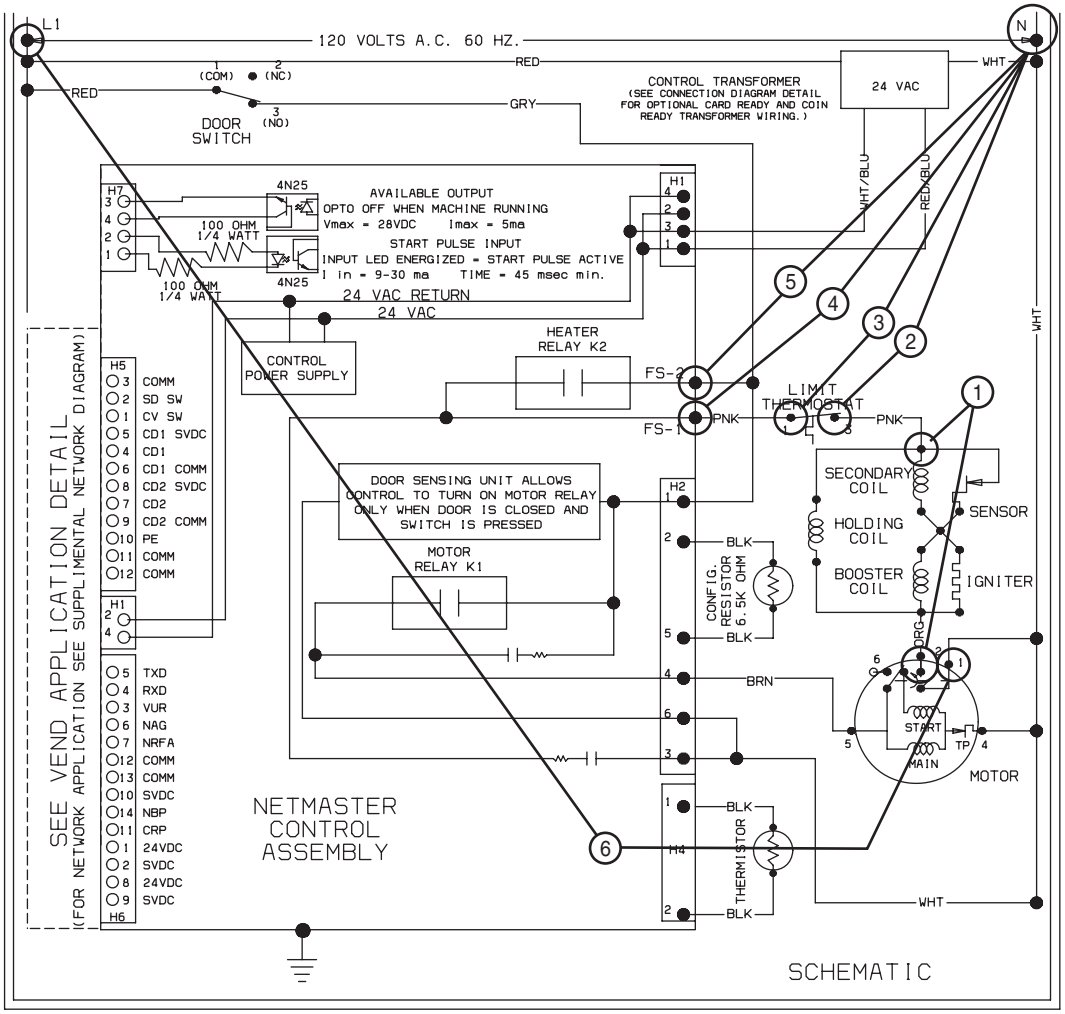
NO HEAT (GAS)



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Notes

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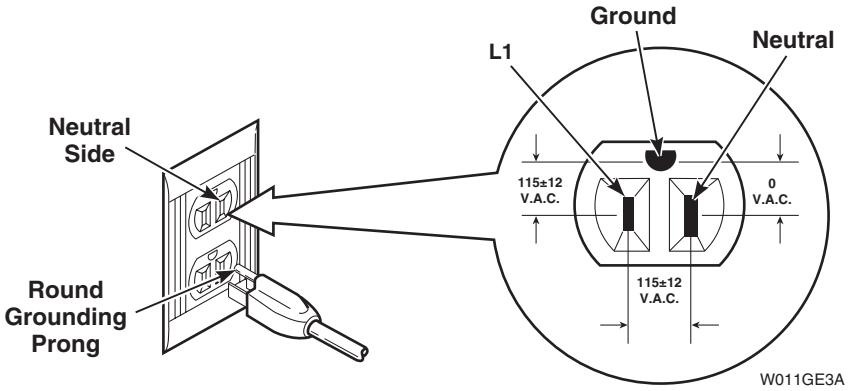
Section 4
Grounding

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

75. WALL RECEPTACLE POLARITY CHECK (Washer Power Cord)
Refer to *Figure 7*.



NOTE: Have a qualified electrician check polarity of wall receptacle. If a voltage reading is measured other than that illustrated, the qualified electrician should correct the problem.

Figure 7

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

76. GROUND WIRES FROM POWER CORD TO REAR BULKHEAD AND FROM REAR BULKHEAD TO CONTROL CABINET – Check Wall Receptacle Polarity (Gas Dryer Models Only)
Refer to *Figure 8*.

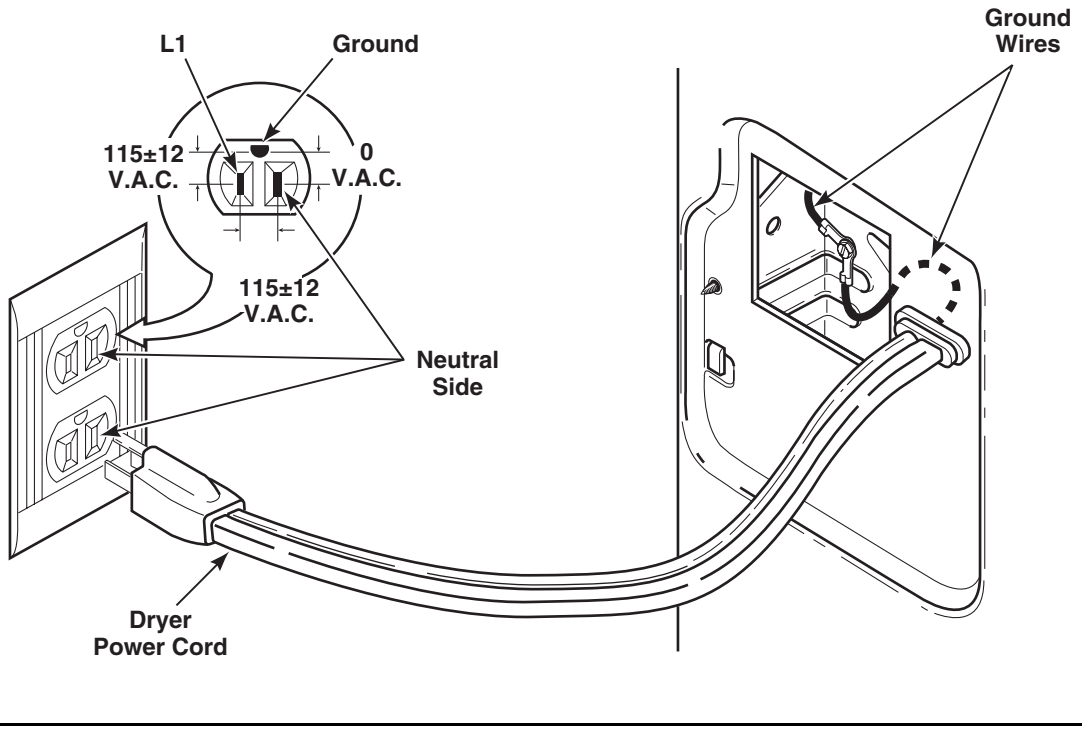

Figure 8

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

77. GROUND WIRE FROM TERMINAL BLOCK TO REAR BULKHEAD AND FROM REAR BULKHEAD TO CONTROL CABINET – (Electric Dryer Models Only)
Refer to *Figure 9*.

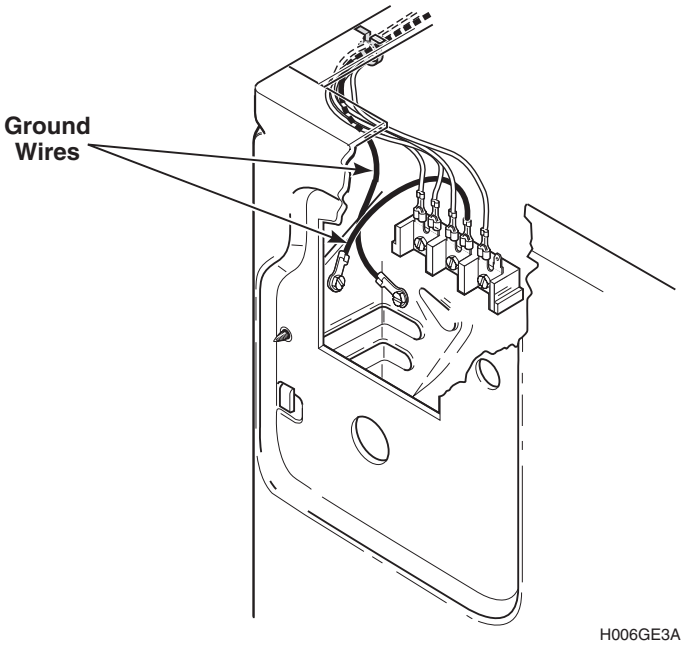

Figure 9

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

78. WASHER GROUND CONNECTIONS

Refer to *Figure 10*.

1. Ground to Electronic Control
2. Ground to Control Panel Assembly
3. Ground to Control Cabinet
4. Ground to Motor Control Board
5. Ground to Control Shield
6. Ground Power Cord to Control Cabinet Wrapper
7. Grounding Hardware to Control Cabinet Wrapper
8. Ground to Motor
9. Ground to Electric Drain Pump
10. Ground to Motor Bracket
11. Ground to Outer Tub
12. Ground to Outer Tub Front

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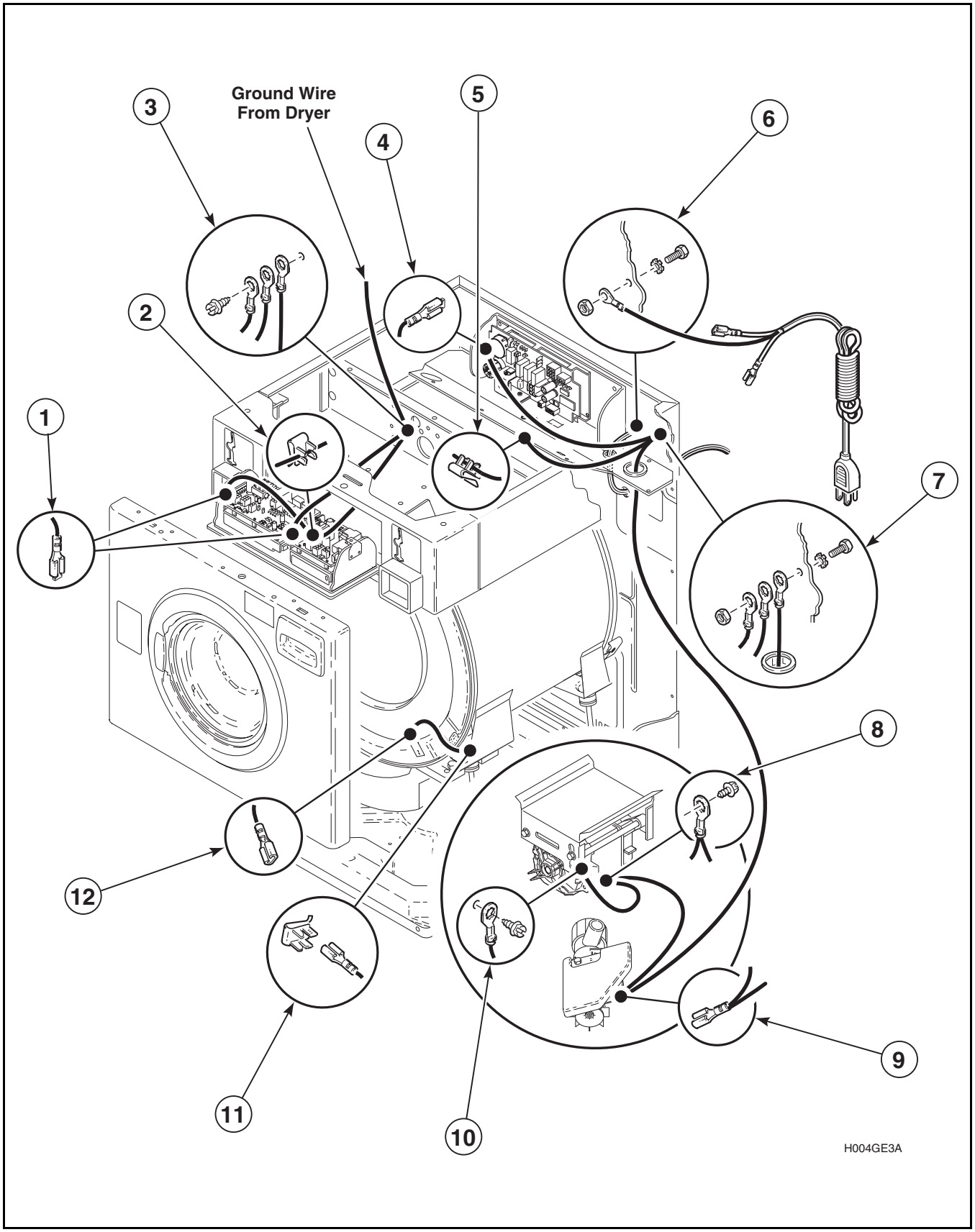

Figure 10

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

79. GROUND WIRES FROM DRYER TO CONTROL CABINET TO CONTROL PANEL

Refer to *Figure 11*.

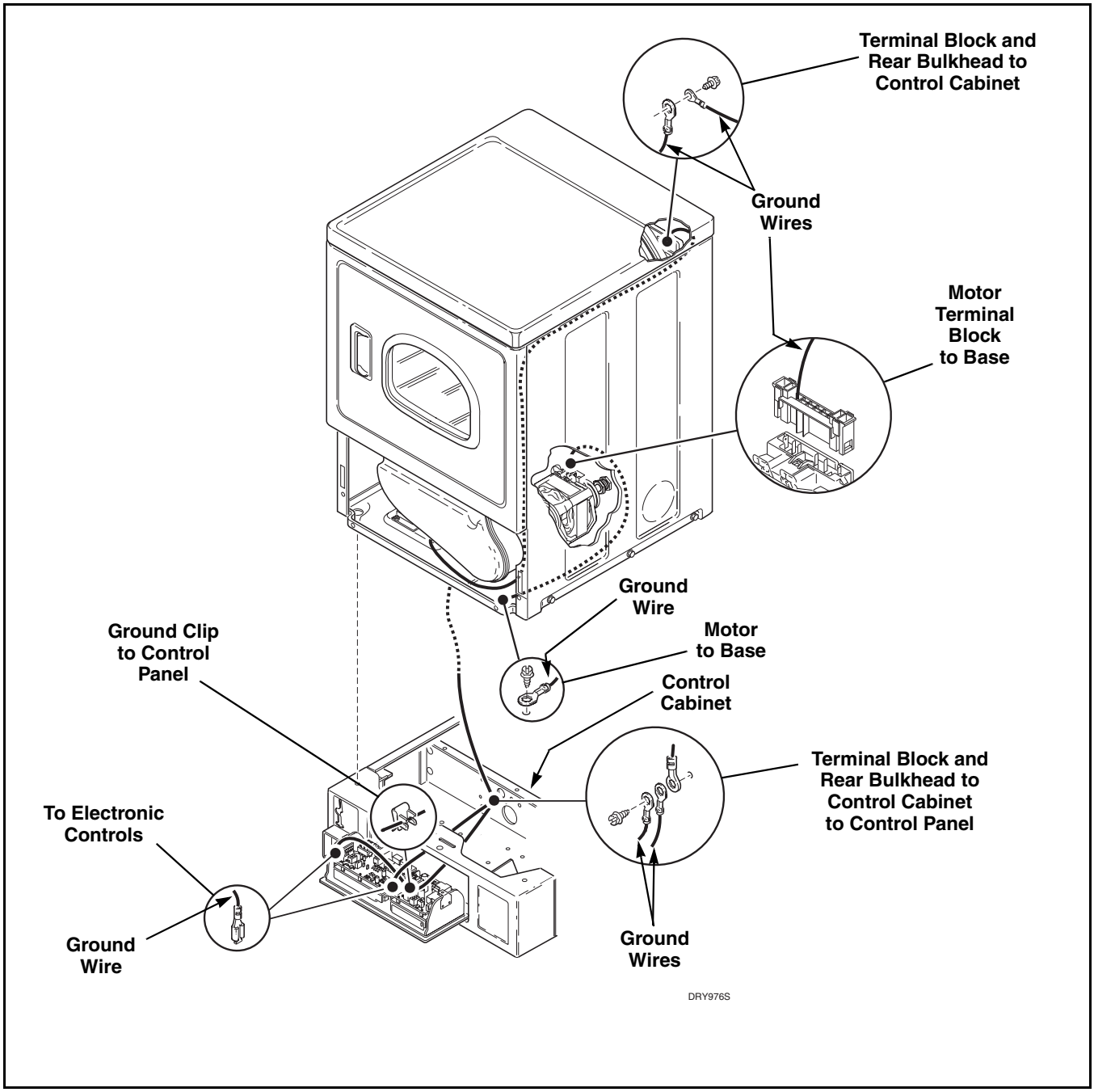

Figure 11

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Section 5
Service Procedures

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

IMPORTANT: When reference is made to directions (right or left) in this manual, it is from operator's position facing front of machine.

80. TO REMOVE THE DRYER

Refer to *Figure 12*.

IMPORTANT: Two people are required to perform this task.

a. Remove all electrical, gas and venting connections to dryer.
b. Remove front access panel on dryer.
c. Remove two 7/16 screws attaching dryer to washer.
d. Open control panel service door and disconnect molex plug.
e. Slide dryer forward, until leveling legs slide into notch on security cabinet.
f. Lift dryer and place on level surface.

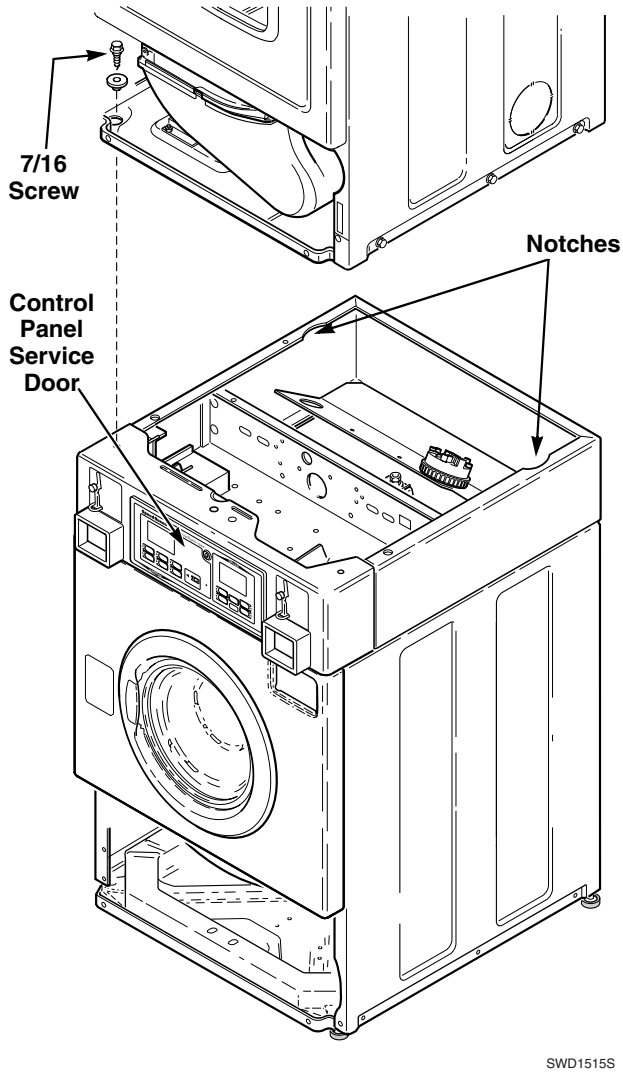

Figure 12

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

81. CONTROL PANEL (Metered Models)

IMPORTANT: Due to the sensitivity of the electronic control, careful handling is required. As a precautionary measure, we recommend using a ground wrist strap when handling the electronic control. Wrist strap, cord and alligator clip are designed to carry away any electrostatic charge from your body and to direct charge to an available ground. By using this static protection device, potential electrostatic discharge problems associated with handling of electronic control will be minimized. Always handle electronic control by its metal edges. If a wrist strap is not available, touch washer while it is plugged in before handling control to dissipate any charge.

a. Unlock control panel. Refer to *Figure 13, Step 1*.
b. Pull top of control panel away from control cabinet far enough to allow lifting control panel up and off the rail support of the control cabinet. Refer to *Figure 13, Step 2*.
c. Remove control panel away from control cabinet as far as wires permit. Refer to *Figure 13, Step 3*.
d. While supporting control panel, disconnect all wires and harness connectors from electronic controls and indicator light.

NOTE: DO NOT pull on wires, instead, hold board near appropriate disconnect block and unplug by pulling on disconnect block and individual wire terminals.

e. Remove ground clip holding ground wire to control panel.

NOTE: Refer to wiring diagram when reconnecting wires.

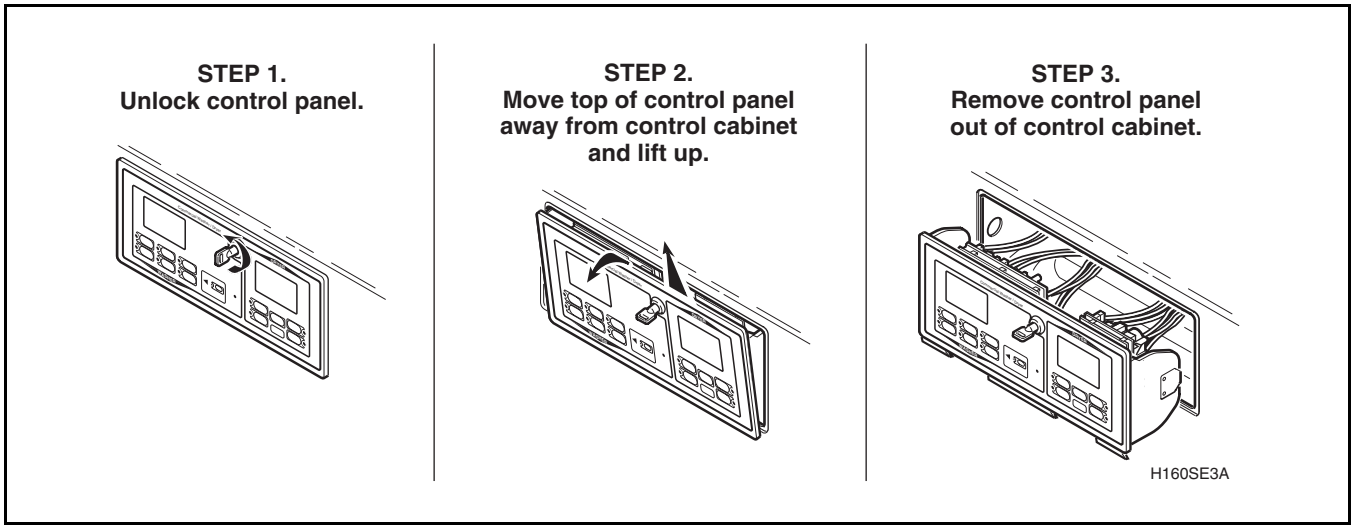
STEP 1.
Unlock control panel.
STEP 2.
Move top of control panel away from control cabinet and lift up.
STEP 3.
Remove control panel out of control cabinet.
H160SE3A

Figure 13

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

82. CONTROL PANEL (Non-Metered Models)

a. Remove timer knobs from washer timer and dryer timer shafts. Refer to *Figure 14*.
b. Pull temperature switch knobs off washer and dryer temperature switch shafts.
c. Remove screws holding control panel to control cabinet. Refer to *Figure 14*. Remove panel as far as wires will permit.

83. CONTROLS (Non-Metered Models)

a. Remove control panel. Refer to *Paragraph 82*.
b. Disconnect two wires from indicator light.

NOTE: Refer to wiring diagram when rewiring light.

c. Squeeze indicator light locking tabs together and pull light out rear of control panel.
d. Disconnect wire harness from washer timer. Remove timer from control panel. Refer to *Figure 14*.
e. Disconnect wires from washer temperature switch terminals. Remove screws holding temperature switch to control panel. Refer to *Figure 14*.
f. Disconnect wires from dryer temperature switch terminals. Remove switch from control panel. Refer to *Figure 14*.

NOTE: DO NOT pull on wires. Instead, unplug by pulling on disconnect blocks. Use a pliers if necessary.

NOTE: Refer to wiring diagram when rewiring switch.

g. Remove wire harness and wires from dryer timer. Remove timer from control panel. Refer to *Figure 14*.
h. Remove control panel overlay from control panel.
i. Remove control panel from unit.

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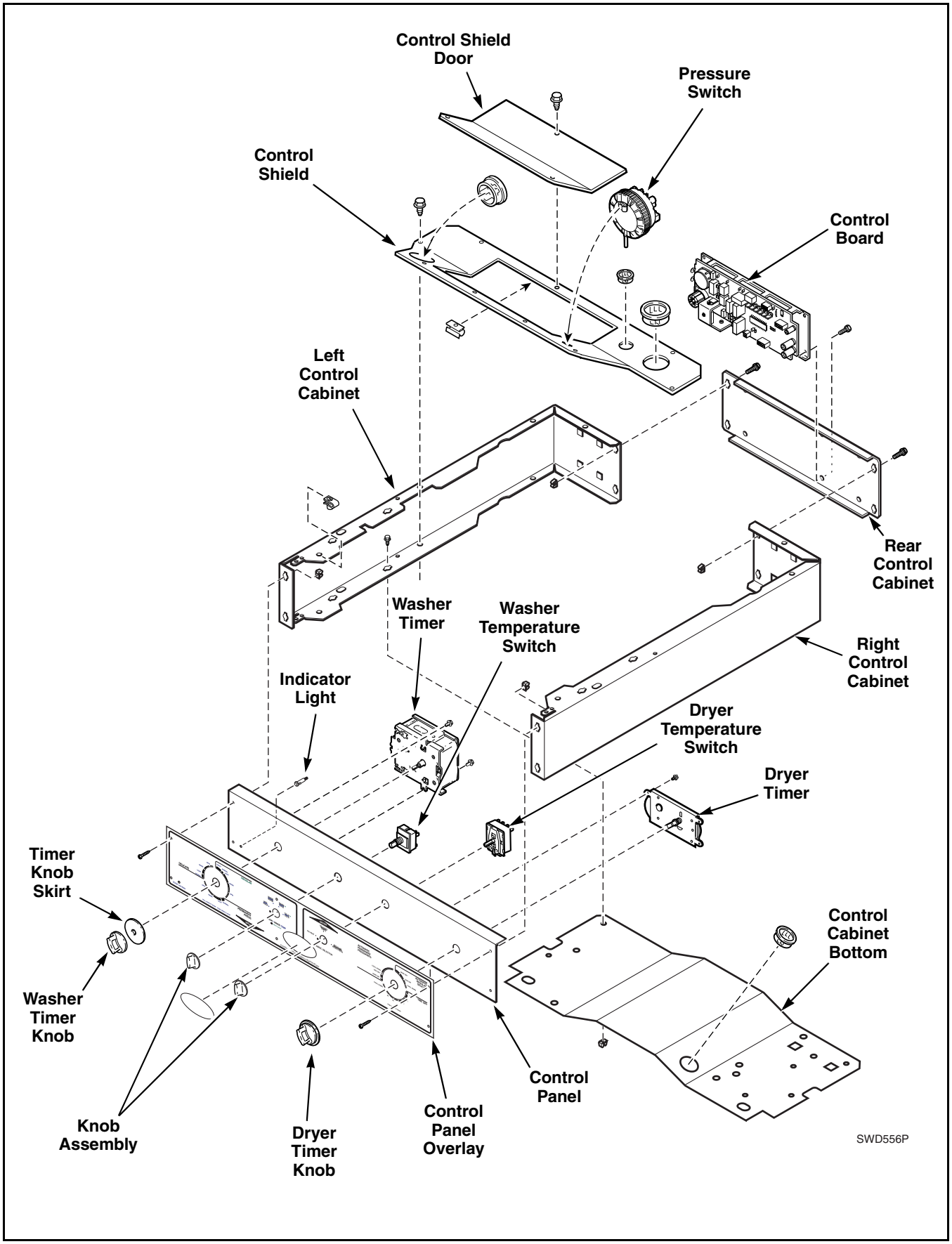

Figure 14

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

84. INDICATOR LIGHT (Metered Models – Washer Door Locked)

a. Unlock control panel. Refer to *Figure 13, Step 1*.

b. Pull top of control panel away from control cabinet far enough to allow lifting control panel up and off the rail support of the control cabinet. Refer to *Figure 13, Step 2*.

c. Remove control panel away from control cabinet as far as wires permit. Refer to *Figure 13, Step 3*.

d. While supporting control panel, disconnect wires from indicator light.

NOTE: Refer to wiring diagram when rewiring light.

e. Squeeze locking tabs together and pull light out rear of control panel. Refer to *Figure 15*.

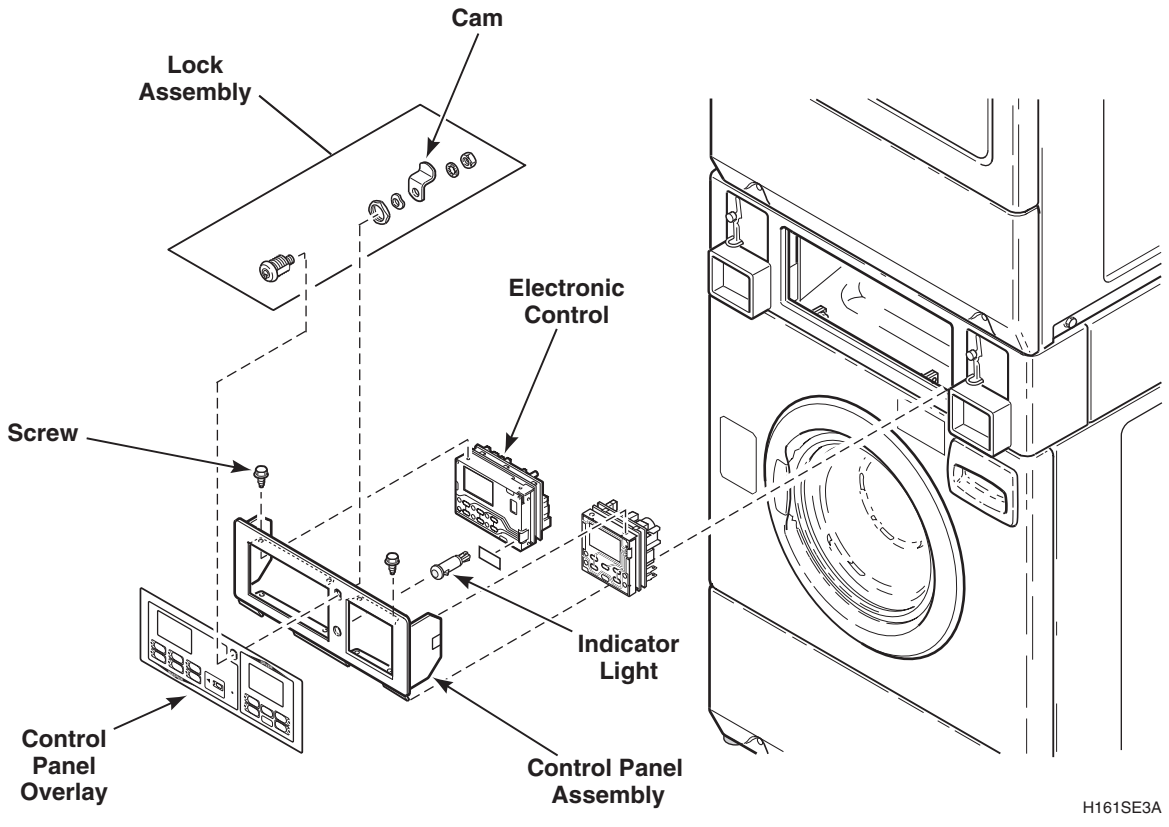

Figure 15

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

85. ELECTRONIC CONTROL (Metered Models)

IMPORTANT: Due to the sensitivity of the electronic control, careful handling is required. As a precautionary measure, we recommend using a ground wrist strap when handling the electronic control. Wrist strap, cord and alligator clip are designed to carry away any electrostatic charge from your body and to direct charge to an available ground. By using this static protection device, potential electrostatic discharge problems associated with handling of electronic control will be minimized. Always handle electronic control by its metal edges. If a wrist strap is not available, touch washer while it is plugged in before handling control to dissipate any charge.

NOTE: New control is supplied in a special anti-static wrapping, and protected by anti-static foam. While holding control by its metal edges, remove control from foam and wrapping.

a. Unlock control panel. Refer to *Figure 13, Step 1*.
b. Pull top of control panel away from control cabinet far enough to allow lifting control panel up and off the rail support of the control cabinet. Refer to *Figure 13, Step 2*.
c. Remove control panel away from control cabinet as far as wires permit. Refer to *Figure 13, Step 3*.
d. While supporting control panel, press in on locking tabs and unplug harness disconnect blocks from backside of electronic control.
e. Remove ground clip holding ground wire to control panel.

NOTE: DO NOT pull on wires, instead, hold board near appropriate disconnect block and unplug by pulling on disconnect block and individual wire terminals.

NOTE: Refer to wiring diagram when reconnecting wires.

f. Remove four screws holding electronic control assembly to backside of control panel. Refer to *Figure 15*.
g. Place the old control in the anti-static wrapping that the new control was supplied in.
h. While holding new control by its metal edges, place control in opening of control panel and fasten control down with four screws removed in Step “e”. Refer to *Figure 15*.

NOTE: For proper control alignment, tighten the top two screws first then tighten the bottom screws. *Figure 15*.

i. Follow wiring diagram and reconnect wires to new control.

IMPORTANT: It is important to take care when handling the original control. It must be carefully placed in the anti-static wrapping and anti-static foam which was removed from new control. If control is not wrapped properly, warranty credit will not be issued.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

86. CONTROL PANEL OVERLAY (Metered Models)

IMPORTANT: Due to the sensitivity of the electronic control, careful handling is required. As a precautionary measure, we recommend using a ground wrist strap when handling the electronic control. Wrist strap, cord and alligator clip are designed to carry away any electrostatic charge from your body and to direct charge to an available ground. By using this static protection device, potential electrostatic discharge problems associated with handling of electronic control will be minimized. Always handle electronic control by its metal edges. If a wrist strap is not available, touch washer while it is plugged in before handling control to dissipate any charge.

a. Removal:
(1) Unlock control panel. Refer to *Figure 13, Step 1*.
(2) Pull top of control panel away from control cabinet far enough to allow lifting control panel up and off the rail support of the control cabinet. Refer to *Figure 13, Step 2*.
(3) Remove control panel away from control cabinet as far as wires permit. Refer to *Figure 13, Step 3*.
(4) Support control panel, press in on locking tabs and unplug harness disconnect blocks from backside of electronic controls.

NOTE: DO NOT pull on wires, instead, hold board near appropriate disconnect block and unplug by pulling on disconnect block and individual wire terminals.

(5) Remove ground clip holding ground wire to control panel.

NOTE: Refer to wiring diagram when reconnecting wires.

(6) Squeeze locking tabs on indicator light, then pull light out through back of panel. Refer to *Figure 15*.
(7) Remove four screws holding electronic control assembly to backside of control panel. Refer to *Figure 15*.
(8) Remove lock assembly from control panel. Refer to *Figure 15*. Remove control panel overlay by peeling it from the control panel assembly.

NOTE: Control panel overlay has an adhesive backing.

b. Installation:

NOTE: Before removing protective backing from new overlay, check fit of overlay to control panel assembly. Refer to *Figure 15*. Use the lock hole in the control panel as the locating guide.

(1) Once panel overlay is fitted to the front of control panel frame, carefully peel protective backing from the left end of panel overlay and press into place.
(2) Remove rest of protective backing from panel overlay and press overlay into place on control panel assembly.
(3) While holding control by its metal edges, place control in opening of control panel and fasten control down with four screws. Refer to *Figure 15*.
(4) Follow wiring diagram and reconnect wires to control.

IMPORTANT: It is important to use care when handling the control.

(5) Reinstall control panel in control cabinet and lock control panel.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

87. COIN DROP

a. Removal:

(1) Unlock control panel. Refer to *Figure 13, Step 1*.

(2) Pull top of control panel away from control cabinet far enough to allow lifting control panel up and off the rail support of the control cabinet front. Refer to *Figure 13, Step 2*.

(3) Remove control panel away from control cabinet as far as wires permit. Refer to *Figure 13, Step 3*.

NOTE: Carefully place protective padding around control panel assembly to keep panel assembly from damaging washer front panel during coin drop removal. Allow panel assembly to hang down supported by wire harness.

(4) Reach into control cabinet to feel position of coin drop.

(5) Disconnect coin drop harness at disconnect block.

(6) Use a 3/8 inch square drive socket, with number 310P4–quarter inch Ratchet Extension Tool, to remove 2 locknuts holding coin drop to front of control cabinet. Refer to *Figure 16*.

NOTE: A 3/8 inch square drive socket, size 7/16 inch, fits over end of the 310P4 Extension Tool. A 1/4 inch ratchet fits in the other end. Refer to *Figure 16*.

(7) Lift back end of coin drop and pull drop straight back until front edge of the drop's front face plate clears the 2 guide wires.

(8) Carefully slide drop straight back until drop clears inside wall of control cabinet. Carefully remove drop out through control panel opening.

b. Installation:

(1) Lift coin drop up on coin drawer housing.

(2) Line up holes in the front face plate of coin drop with the 2 guide wires. Slide coin drop forward, making sure guide wires are through holes in front face plate of coin drop.

(3) Slide coin drop forward all the way until front face plate of coin drop is up against the control cabinet front, with the coin return stop completely through slot.

(4) Using a 3/8 inch square drive 7/16 inch socket with number 310P4 1/4 inch Ratchet extension Tool, reinstall both locknuts and tighten locknuts firmly.

(5) Reconnect coin drop wire harness.

(6) Reinstall control panel in control cabinet and lock control panel.

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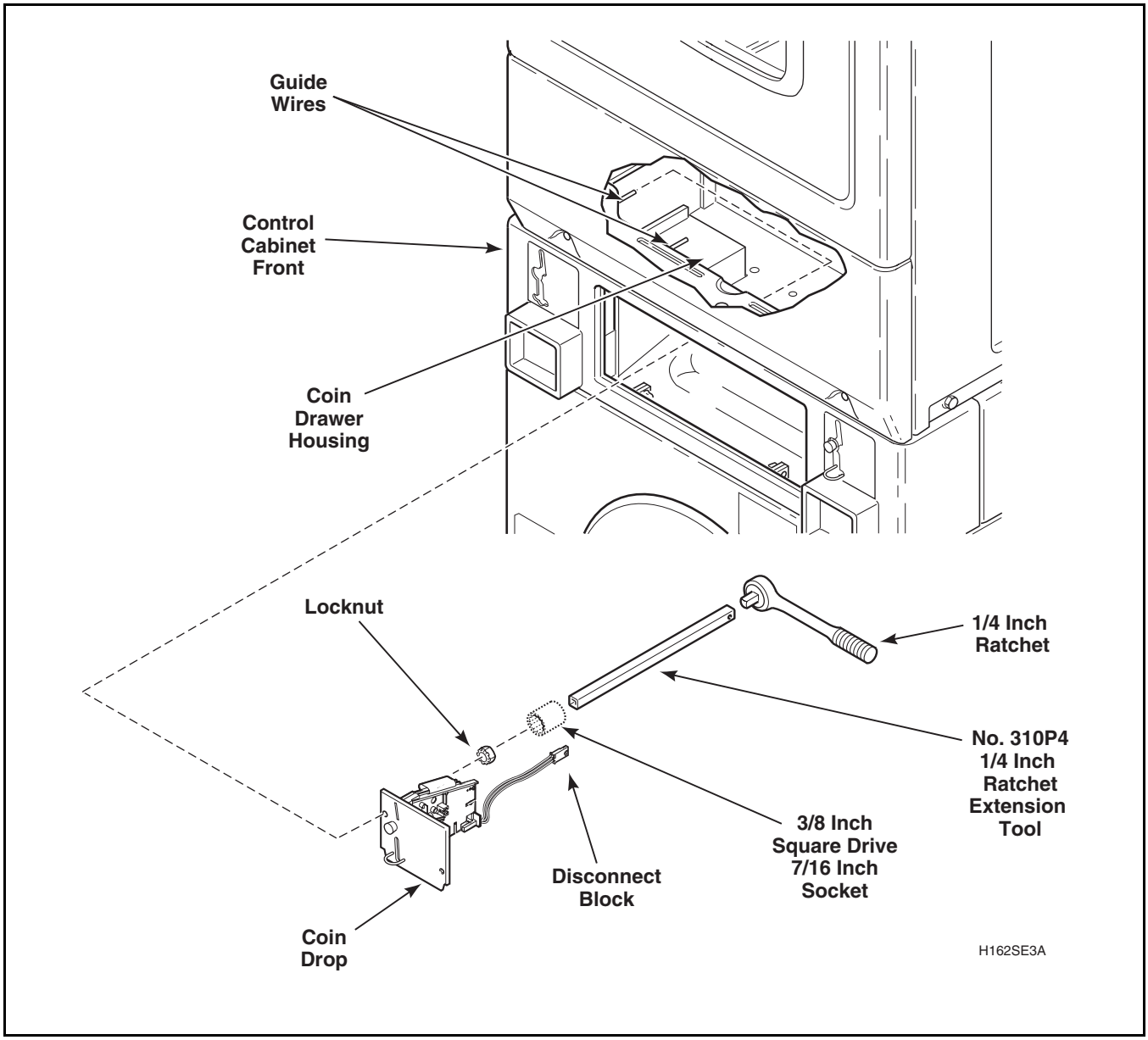

Figure 16

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

88. CARD READER

NOTE: Card reader can be removed through control panel, but it may be easier to remove the dryer before attempting to remove the card reader. Refer to *Paragraph 80* for dryer removal.

a. Removal of 39685 Card Reader:
   (1) Unlock control panel. Refer to *Figure 13, Step 1*.
   (2) Pull top of control panel away from control cabinet far enough to allow lifting control panel up and off the rail support of the control cabinet front. Refer to *Figure 13, Step 2*.
   (3) Remove control panel away from control cabinet as far as wires permit. Refer to *Figure 13, Step 3*.

NOTE: Carefully place protective padding around control panel assembly to keep panel assembly from damaging washer front panel during removal of card reader. Allow panel assembly to hang down supported by wire harness.

   (4) Reach into control cabinet to feel position of card reader.
   (5) Disconnect card reader harness at disconnect block.
   (6) Remove screws or nuts holding card reader to control cabinet front and carefully remove card reader out through control panel opening. Refer to *Figure 17* or *18*.

b. Installation of 39685 Card Reader:
   (1) Carefully place card reader into opening in control cabinet front.
   (2) Secure card reader to control cabinet front using screws or nuts previously removed. Refer to *Figure 17* or *18*. Then tighten screws or nuts firmly.
   (3) Reconnect card reader harness.
   (4) Reinstall control panel in control cabinet and lock control panel.

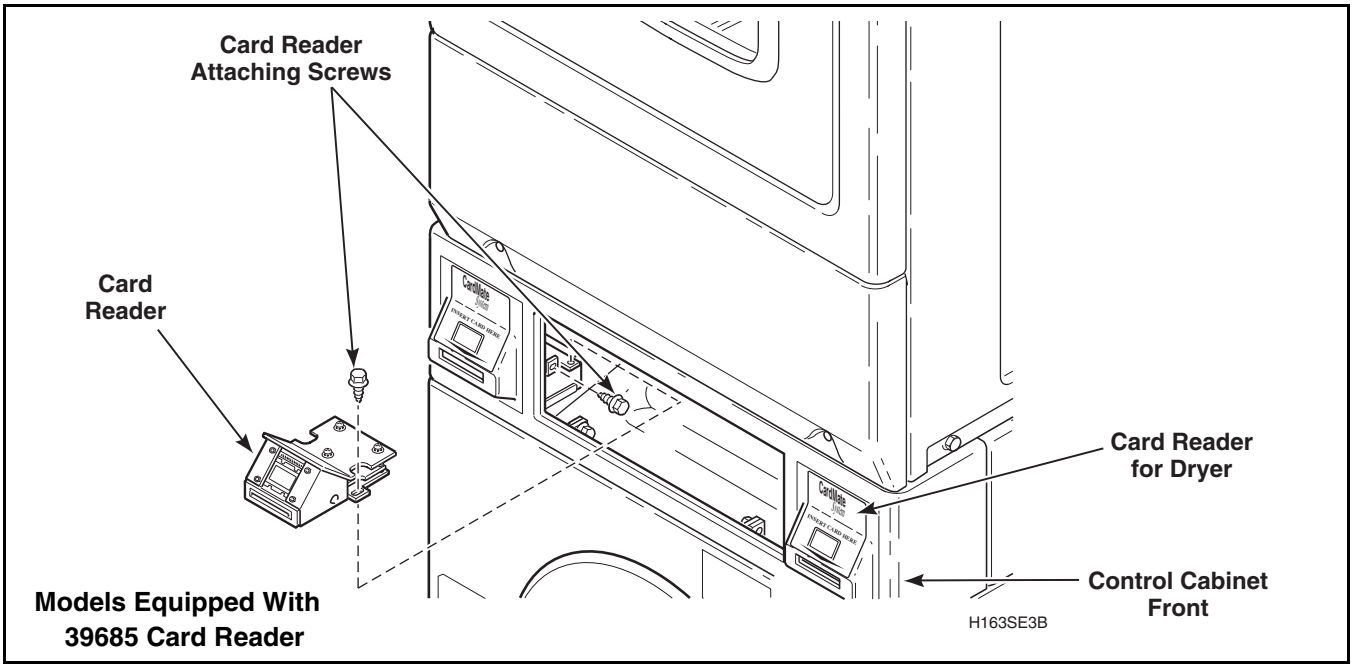

Figure 17

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

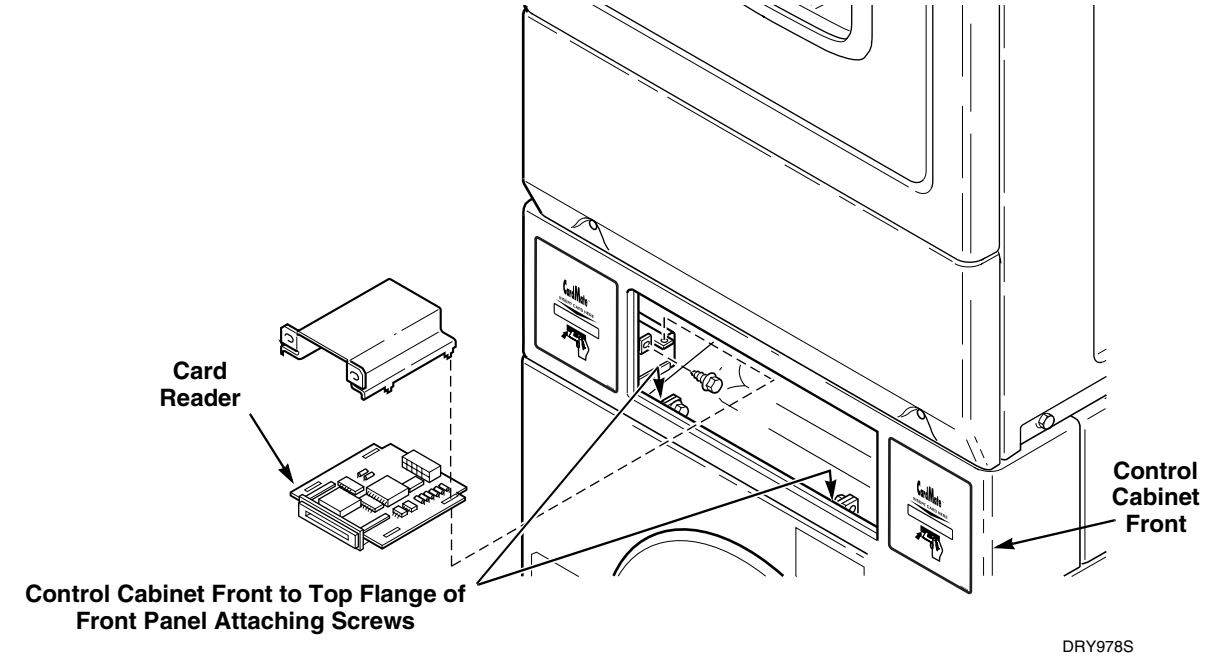
Card Reader
Control Cabinet Front
Control Cabinet Front to Top Flange of Front Panel Attaching Screws
DRY978S
Models Equipped With 510068 Card Reader

Figure 18

c. Removal of 510068 Card Reader:
   (1) Unlock control panel. Refer to *Figure 13, Step 1*.
   (2) Pull top of control panel away from control cabinet far enough to allow lifting control panel up and off the rail support of the control cabinet front. Refer to *Figure 13, Step 2*.
   (3) Remove control panel away from control cabinet as far as wires permit. Refer to *Figure 13, Step 3*.
   (4) Disconnect card reader harness at disconnect block.
   (5) Use a 3/8 inch square drive socket, with number 310P4 1/4 inch Ratchet Extension Tool, to remove screws or nuts holding card reader to control cabinet front and carefully remove card reader out through top of control cabinet. Refer to *Figure 18* or *19*.

NOTE: A 3/8 inch square drive socket, size 7/16 inch, fits over end of the 310P4 Extension Tool. A 1/4 inch ratchet fits in the other end. Refer to *Figure 19*.

d. Installation of 510068 Card Reader:
   (1) Carefully place card reader into opening in control cabinet front.
   (2) Using a 3/8 inch square drive 7/16 inch socket with number 310P4 1/4 inch Ratchet Extension Tool, secure card reader to control cabinet front with screws or nuts previously removed. Refer to *Figure 18* or *19*. Then tighten screws or nuts firmly.
   (3) Reconnect card reader harness.
   (4) Reinstall control panel in control cabinet and lock control panel.

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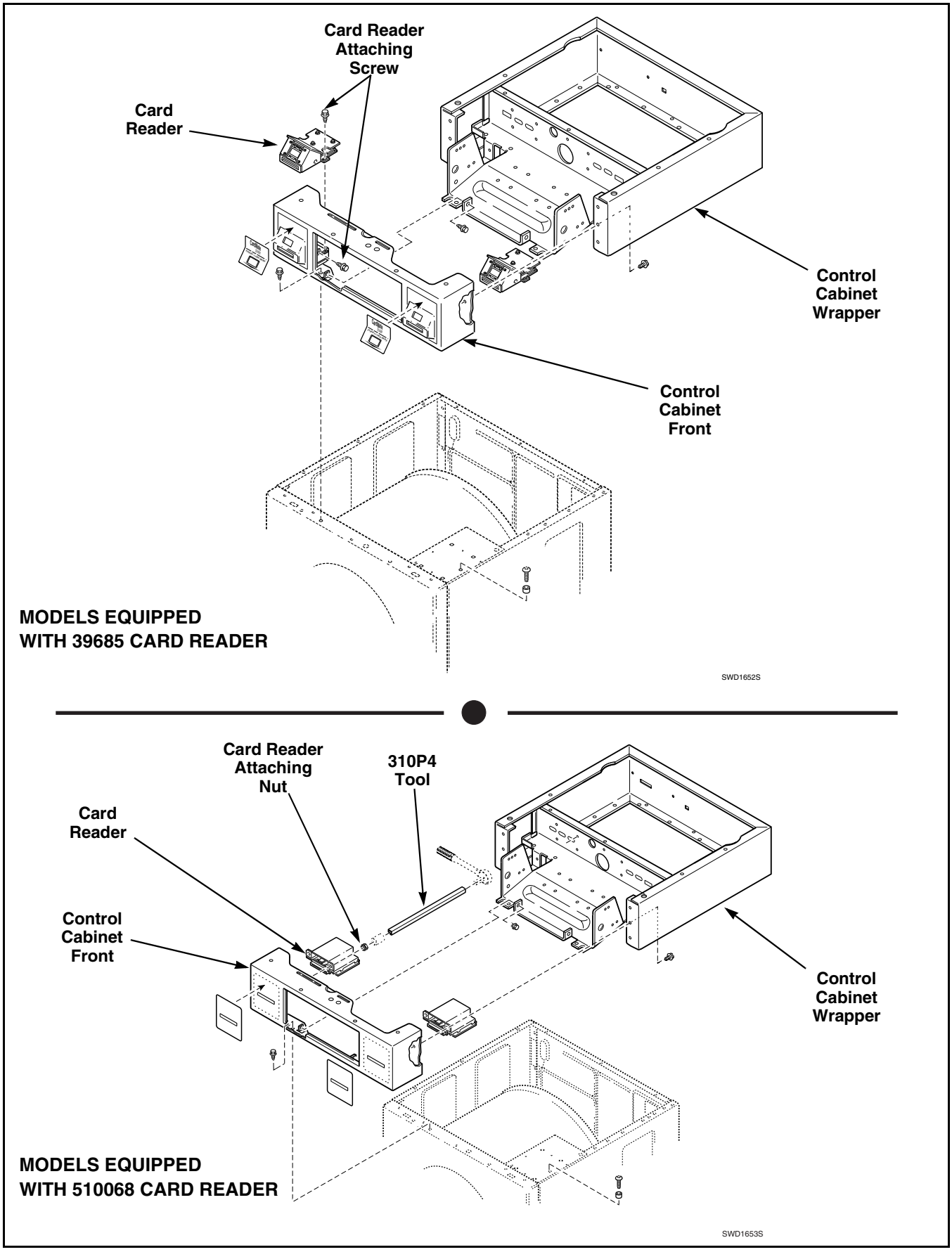

Figure 19

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

89. WASHER FRONT PANEL

a. Open loading door. Carefully remove wire clamp ring from groove with small flat screwdriver. Spring is in 6 o'clock position. Refer to *Figure 28*.
b. Grasp loading door seal. Refer to *Figure 21*.
c. Using a circular motion, pull seal up, out and down. Refer to *Figure 21*.
d. When seal releases from lip of front panel, pull out and remove the seal.
e. While supporting lower access panel, remove two screws from bottom edge of lower access panel. Refer to *Figure 23*.
f. Gently lower access panel to disengage panel locators from bottom edge of front panel.
g. Using the special tool, No. 318P4, remove the dispenser drawer. Refer to *Figure 20*.
h. Remove control panel. Refer to *Paragraph 81* or *82*.
i. Working through control panel opening, remove two screws holding bottom flange of control cabinet front to top flange of front panel.
j. Remove bottom two front corner screws. Refer to *Figure 27*.

NOTE: The ease of installation of the loading door seal can be improved using water or soapy solution to work seal around circumference of loading door. Be sure to orientate seal with the tab in the 12 o'clock position when installing the wire clamp ring to front panel. Be careful not to overstretch tension spring.

k. Remove front panel (with loading door attached) away from washer as far as wires permit.
l. Unplug wire harness from both the door latch switch and from the door switch. Refer to *Figure 27*. Remove clips holding wire harness and door seal hose along top flange of front panel and remove front panel.

NOTE: Door seal hose and wire harness must be reinstalled in the appropriate clips and holes along top flange of front panel. Refer to *Figure 30*.

IMPORTANT: Before reinstalling door and front panel assembly, make sure the door catch lines up with the door latch switch. If adjustment is required, refer to *Paragraph 135*.

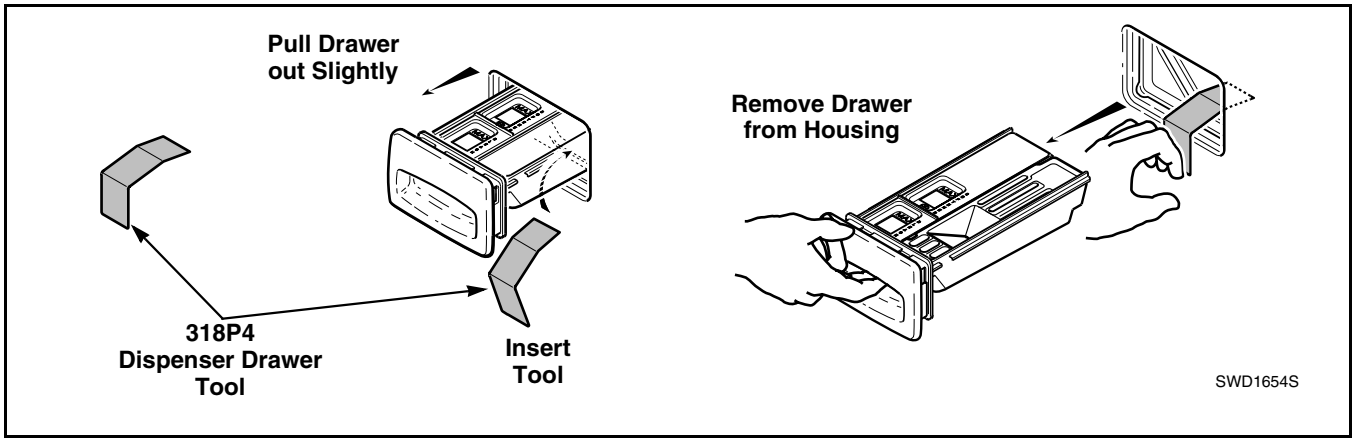

Figure 20

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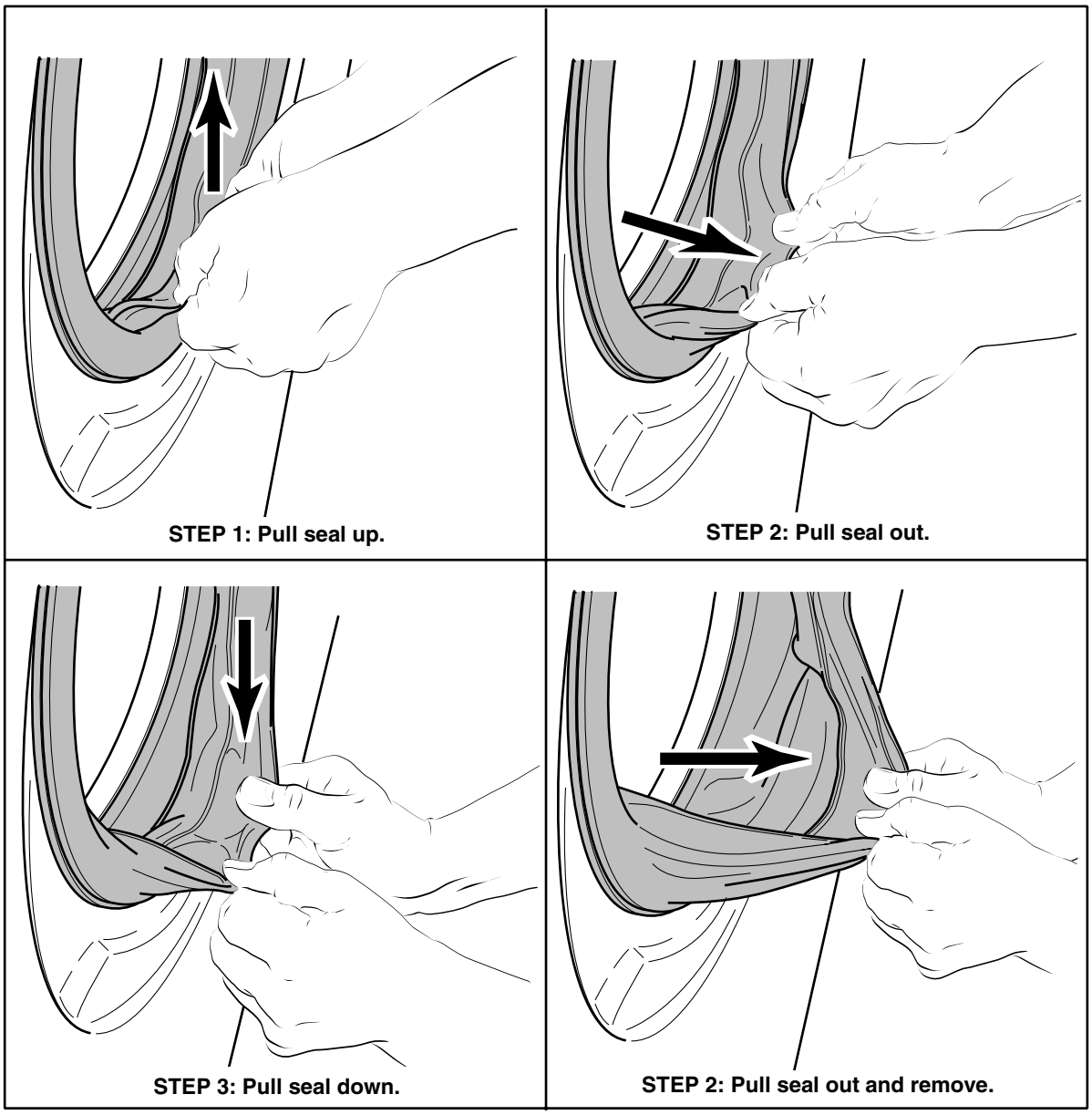

Figure 21

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

90. WASHER MOTOR CONTROL BOARD

a. Go to rear of washer and remove screws holding rear access panel to rear of control cabinet. Refer to *Figure 22*.

b. Tilt access panel back far enough to disengage bottom of access panel from opening in control cabinet.

IMPORTANT: Due to the sensitivity of the motor control board, careful handling is required. As a precautionary measure, we recommend using a ground wrist strap when handling the motor control board. Wrist strap, cord and alligator clip are designed to carry away any electrostatic charge from your body and to direct charge to an available ground. By using this static protection device, potential electrostatic discharge problems associated with handling of motor control board will be minimized. Always handle motor control board by its metal edges. If a wrist strap is not available, touch washer while it is plugged in before handling control to dissipate any charge.

NOTE: New control is supplied in a special anti-static wrapping, and protected by anti-static foam. While holding control by its metal edges, remove control from foam and wrapping.

c. Press in on locking tabs and unplug harness disconnect blocks and all wires from motor control board.

NOTE: DO NOT pull on wires, instead, hold board near appropriate disconnect block and unplug by pulling on disconnect block and individual wire terminals.

d. Remove four screws holding motor control board to rear access panel. Refer to *Figure 22*.

e. Place old control board in the anti-static wrapping that new control board was supplied in.

f. Position the new motor control board on rear access panel as shown in *Figure 22*. Reinstall screws (removed in Step “d”) and tighten firmly.

g. Follow the wiring diagram and reconnect wires and harness disconnect blocks to new motor control board.

IMPORTANT: It is important to take care when handling the original motor control board. It must be carefully placed in the anti-static wrapping and anti-static foam which was removing from new motor control board. If motor control board is not wrapped properly, warranty credit will not be issued.

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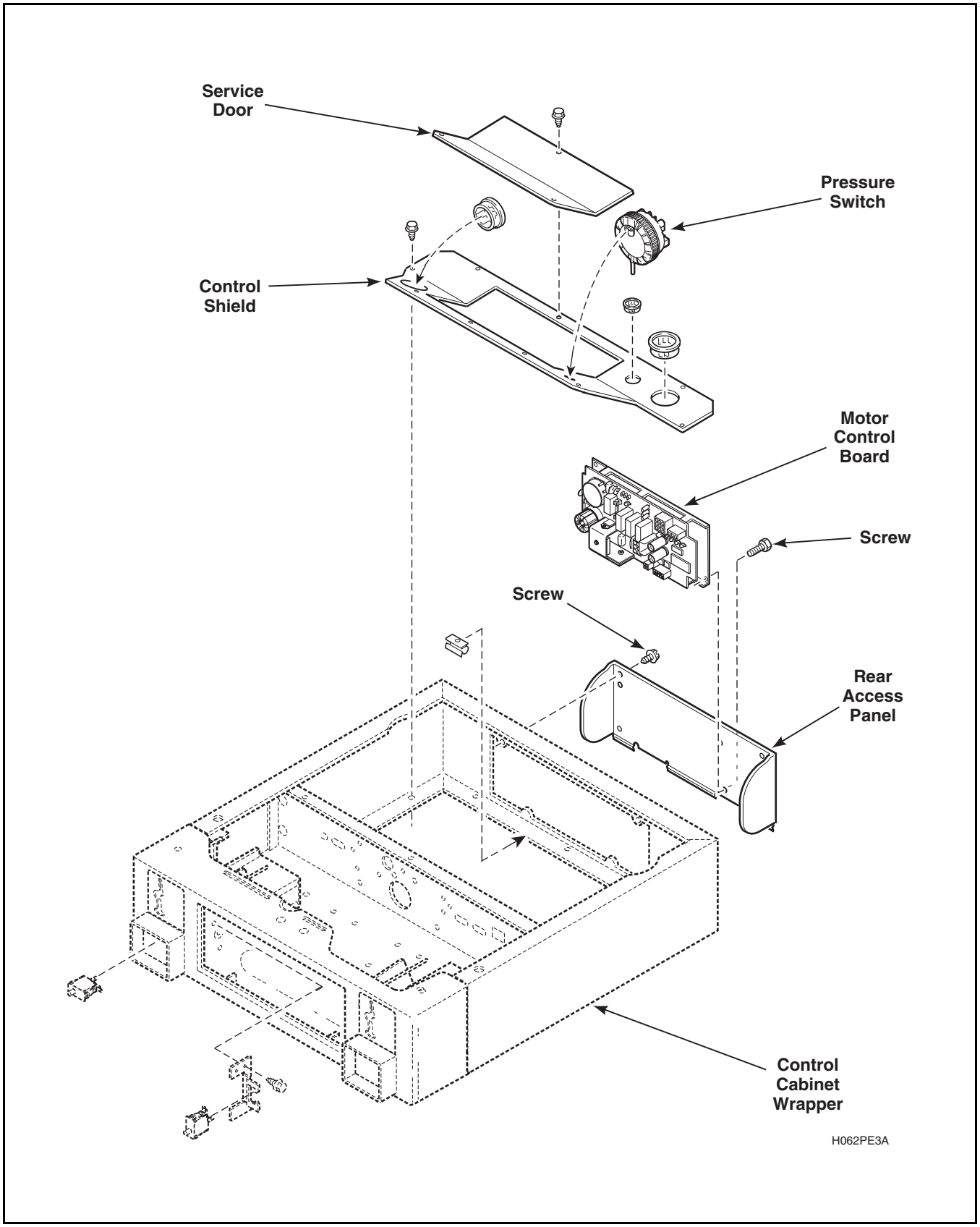

Figure 22

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

91. PRESSURE SWITCH

a. Go to rear of washer and remove screws holding rear access panel to rear of control cabinet. Refer to *Figure 22*.
b. Tilt access panel back far enough to disengage bottom of access panel from opening in control cabinet.
c. Disconnect wires from pressure switch at disconnect block.
d. Disconnect pressure hose from pressure switch.

IMPORTANT: When installing pressure switch, blow air into hose before connecting hose to switch to remove any moisture that may have accumulated in hose.

e. Squeeze locking tabs in on pressure switch and push switch out toward rear of control shield. Refer to *Figure 22*.

92. WASHER LOWER ACCESS PANEL

a. While supporting the lower access panel, remove two screws from bottom edge of lower access panel. Refer to *Figure 23*.
b. Gently lower the access panel to disengage panel locators from bottom edge of front panel.

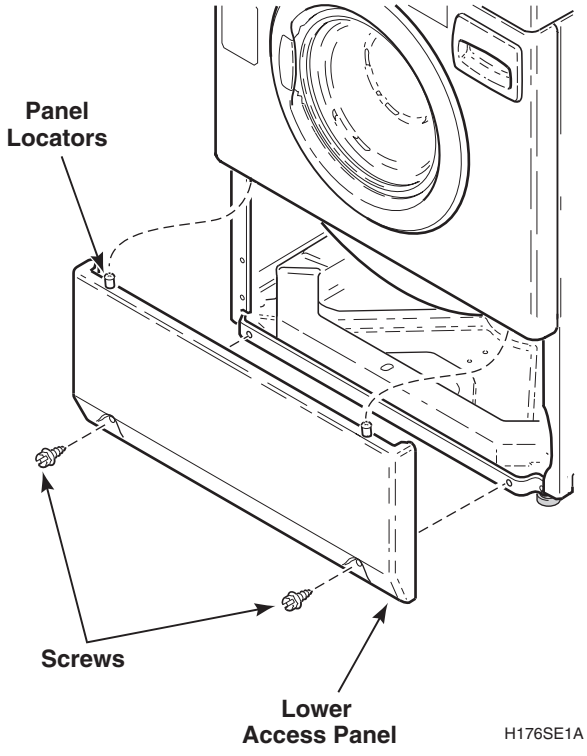

Figure 23

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

93. ELECTRIC DRAIN PUMP

a. While supporting the lower access panel, remove two screws from bottom edge of lower access panel. Refer to *Figure 23*.

b. Gently lower the access panel to disengage panel locators from bottom edge of front panel.

IMPORTANT: There will always be some water that will remain in the pump and hoses, therefore, before removing hoses from pump, hoses must be drained to prevent water spillage.

c. Loosen hose clamps and remove three hoses connected to electric drain pump (outer tub-to-pump hose, vent hose and drain hose). Refer to *Figure 24*.

d. Disconnect wires from drain pump.

NOTE: Refer to wring diagram when rewiring drain pump.

e. Remove three mounting screws holding pump to base and remove pump out through front of washer. Refer to *Figure 24*.

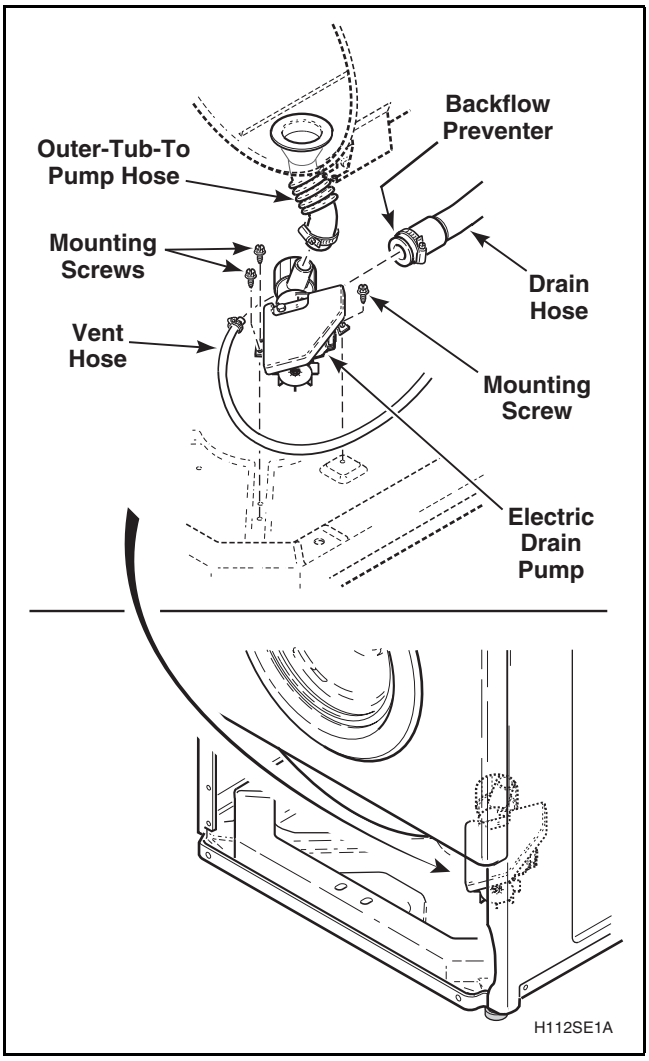

Figure 24

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

94. WASHER BELT

a. Go to rear of washer and remove two screws holding rear access panel to rear of control cabinet. Refer to *Figure 22*.
b. Tilt access panel back far enough to disengage bottom of access panel from opening in control cabinet.
c. Reach in through opening and remove screw holding service door to control shield and remove service door. Refer to *Figure 22*.
d. Remove screws holding lower rear access panel to rear panel and remove access panel. Refer to *Figure 25*.
e. Run belt off cylinder pulley while slowly turning pulley. Refer to *Figure 25*.
f. Remove belt from motor shaft.

NOTE: When installing belt, adjust belt tension per *Paragraph 134*.

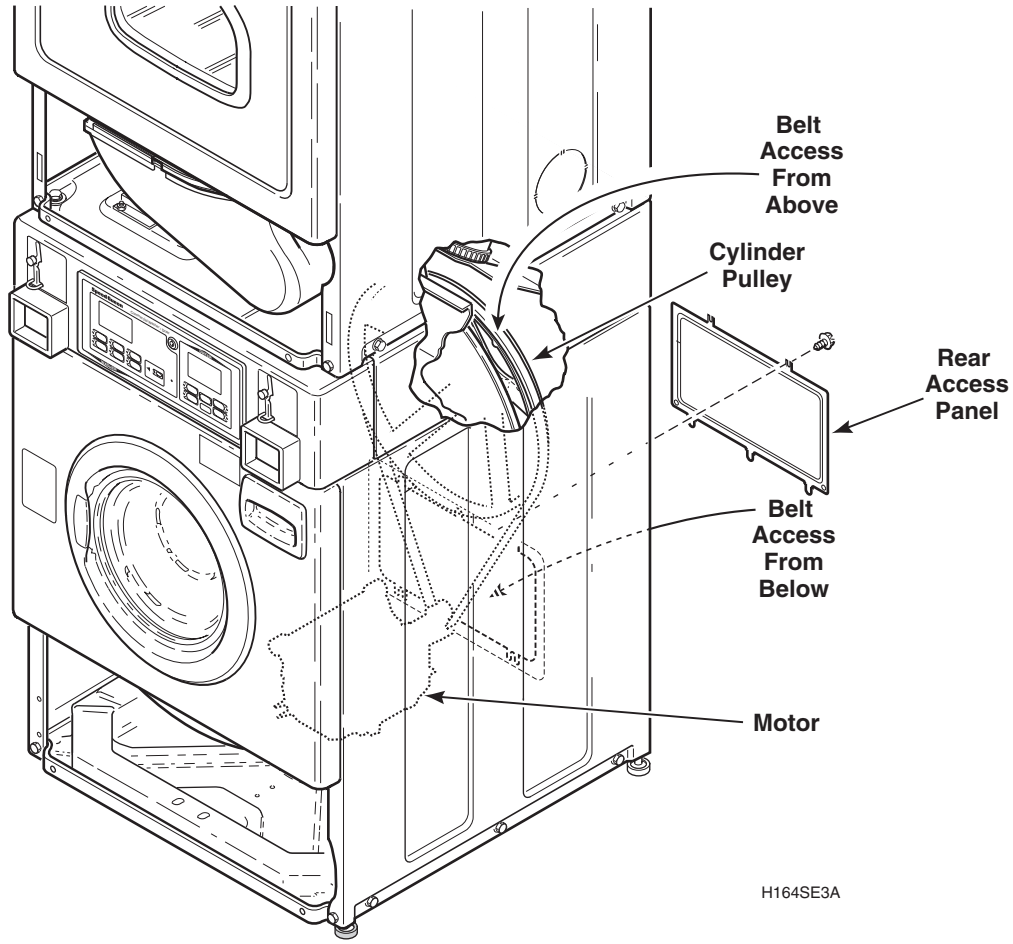

Figure 25

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

95. MIXING VALVE

NOTE: Mixing valve is located on upper back right corner of rear panel. Refer to *Figure 26*.

a. Go to rear of washer and remove screw holding mixing valve and plate to rear panel, then remove valve and plate out through opening in rear panel. Refer to *Figure 26*.
b. Shut off external hot and cold water supply and remove two inlet hoses.
c. Remove screws holding valve to mixing valve plate. Refer to *Figure 26*.
d. Loosen hose clamp and remove mixing valve-to-dispenser hose at the mixing valve. Refer to *Figure 26*.
e. Remove wire harness disconnect blocks from mixing valve solenoid terminals. Refer to *Figure 26*.

NOTE: Refer to wiring diagram when rewiring solenoids.

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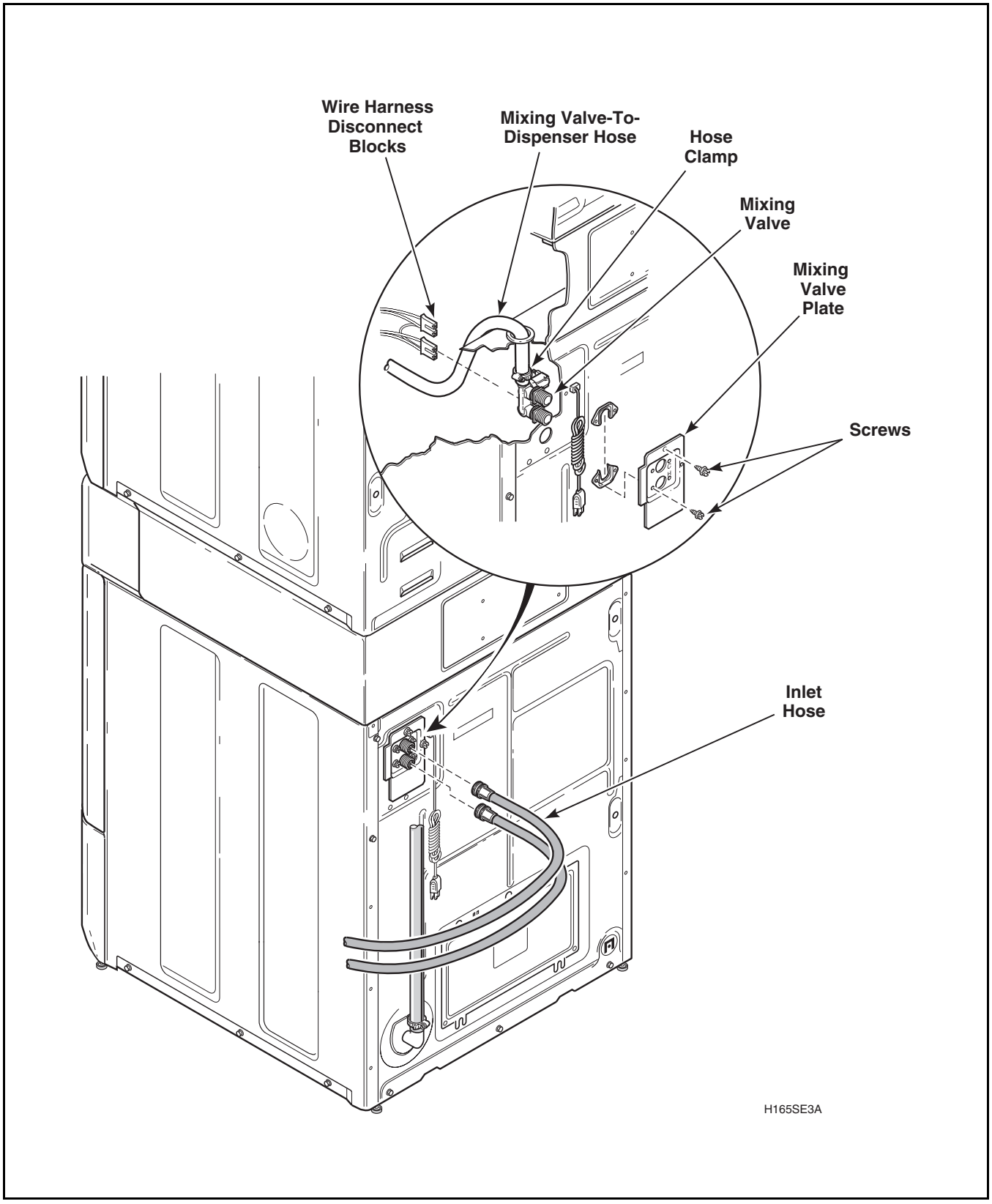

Figure 26

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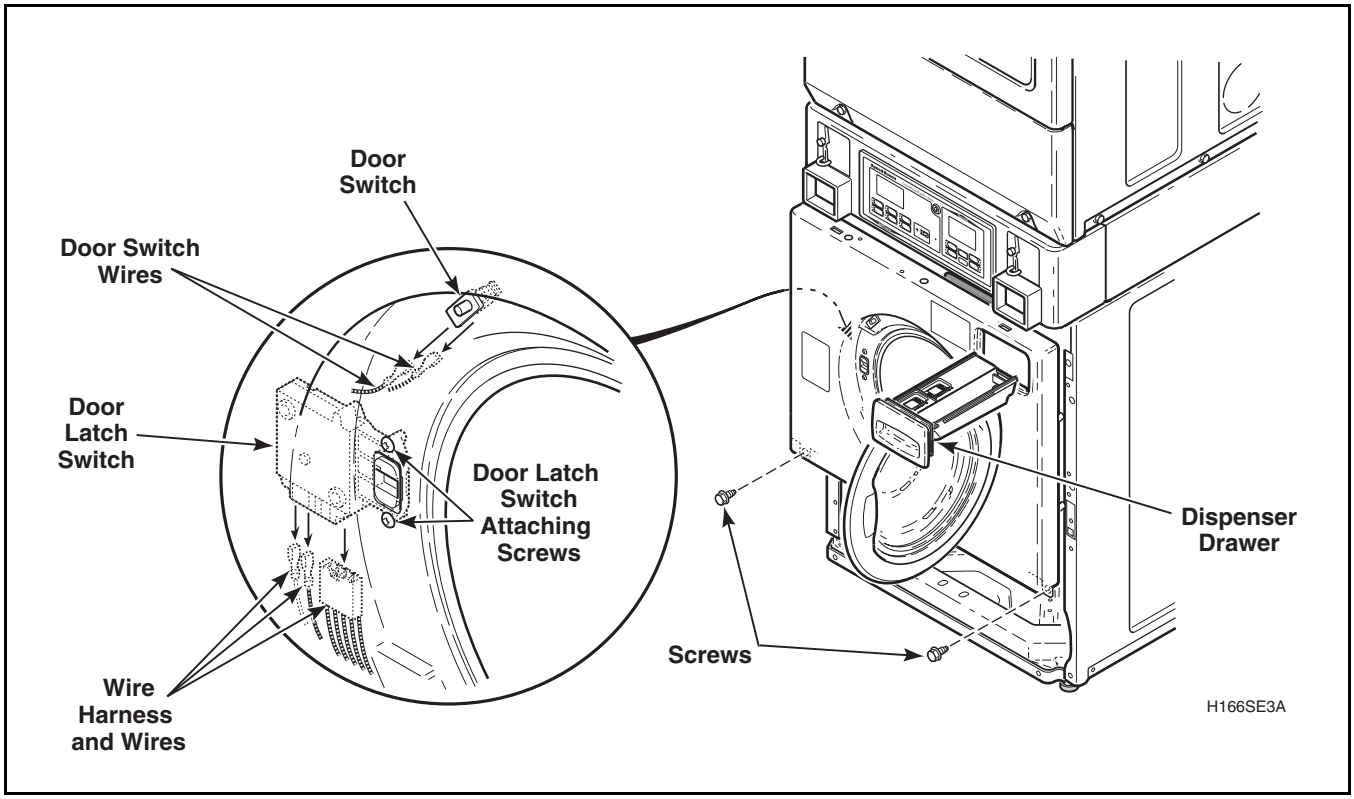

Figure 27

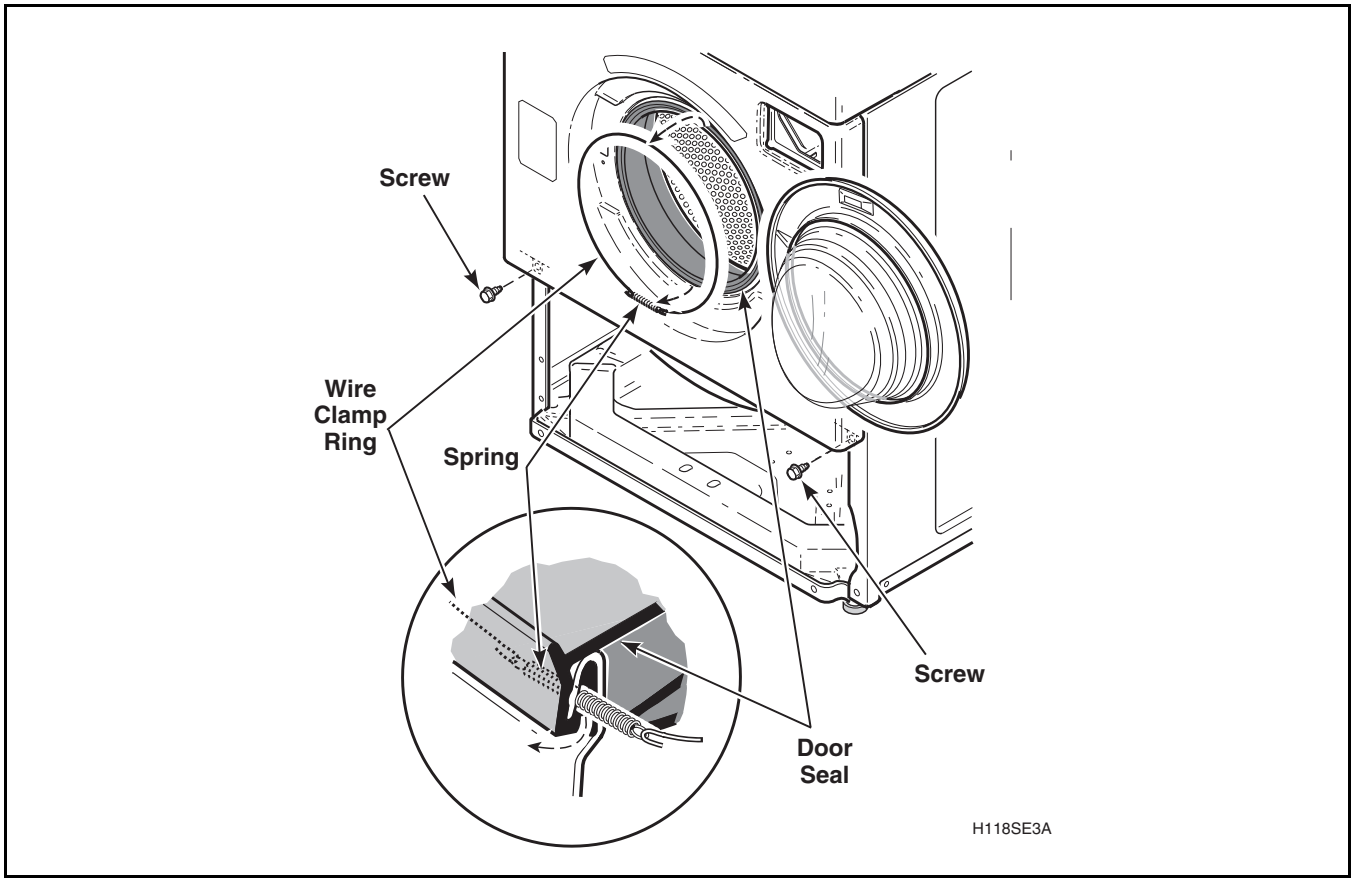

Figure 28

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

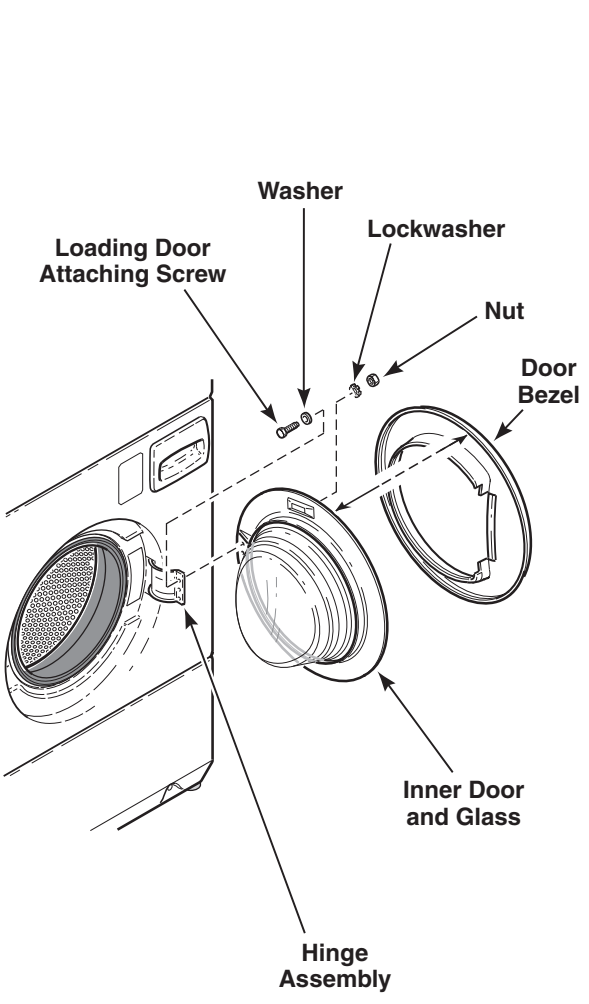
W014R1

96. WASHER LOADING DOOR

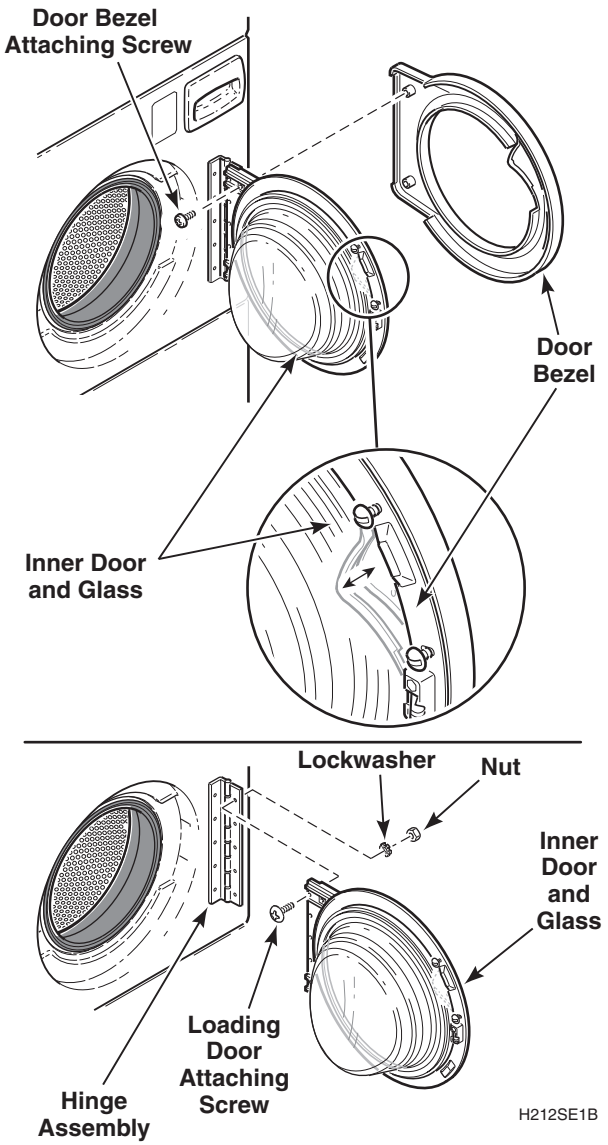
a. Open loading door.

b. Remove door bezel to gain access to nuts. Refer to *Figure 29*.

c. The loading door can be adjusted up or down somewhat by loosening screws holding door to hinge, then raise or lower door before retightening screws. Refer to *Figure 29*.



MODELS WITH THE LETTER "E" IN THE EIGHTH CHARACTER OF THE MODEL NUMBER



MODELS WITH THE LETTER "H" OR "J" IN THE EIGHTH CHARACTER OF THE MODEL NUMBER

Figure 29

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

97. WASHER DOOR SEAL AND HOSE ASSEMBLY

a. Using the special tool, No. 318P4, remove dispenser drawer. Refer to *Figure 20*.
b. Open loading door. Carefully remove wire clamp ring from groove with small flat screwdriver. Spring is in 6 o'clock position. Refer to *Figure 28*.
c. Grasp loading door seal. Refer to *Figure 21*.
d. Using a circular motion, pull seal up, out and down. Refer to *Figure 21*.
e. When seal releases from lip of front panel, pull out and remove the seal.
f. Remove control panel. Refer to *Paragraph 81* or *82*.
g. Reach in through control panel opening and remove two screws holding bottom front flange of control cabinet front to top flange of washer front panel. Refer to *Figure 18*.
h. While supporting lower access panel, remove two screws from bottom edge of lower access panel. Refer to *Figure 23*.
i. Gently lower access panel to disengage panel locators from bottom edge of front panel.
j. While supporting the front panel assembly, remove the two bottom front corner screws. Refer to *Figure 27*. Remove front panel (with loading door attached) away from washer as far as wire permit.
k. Unplug wire harness from both the door latch switch and from the door switch. Refer to *Figure 30*. Remove clips holding wire harness and door seal hose along top flange of front panel and remove front panel.
l. Loosen hose clamp and remove door seal hose connection at the dispenser. Refer to *Figure 30*.
m. Cut hose tie strap that holds door seal to dispenser plate.

IMPORTANT: When installing door seal hose, pull hose tie tight to prevent damage. Refer to *Figure 30*.

n. Loosen large clamp holding seal to front of outer tub. Slide seal off front of outer tub and remove seal.

NOTE: The ease of installation of loading door seal can be improved using water or soap solution to work seal around the circumference of loading door. Be sure to orientate seal with tab in the 12 o'clock position when installing wire clamp ring to the front panel. Be careful not to overstretch tension spring.

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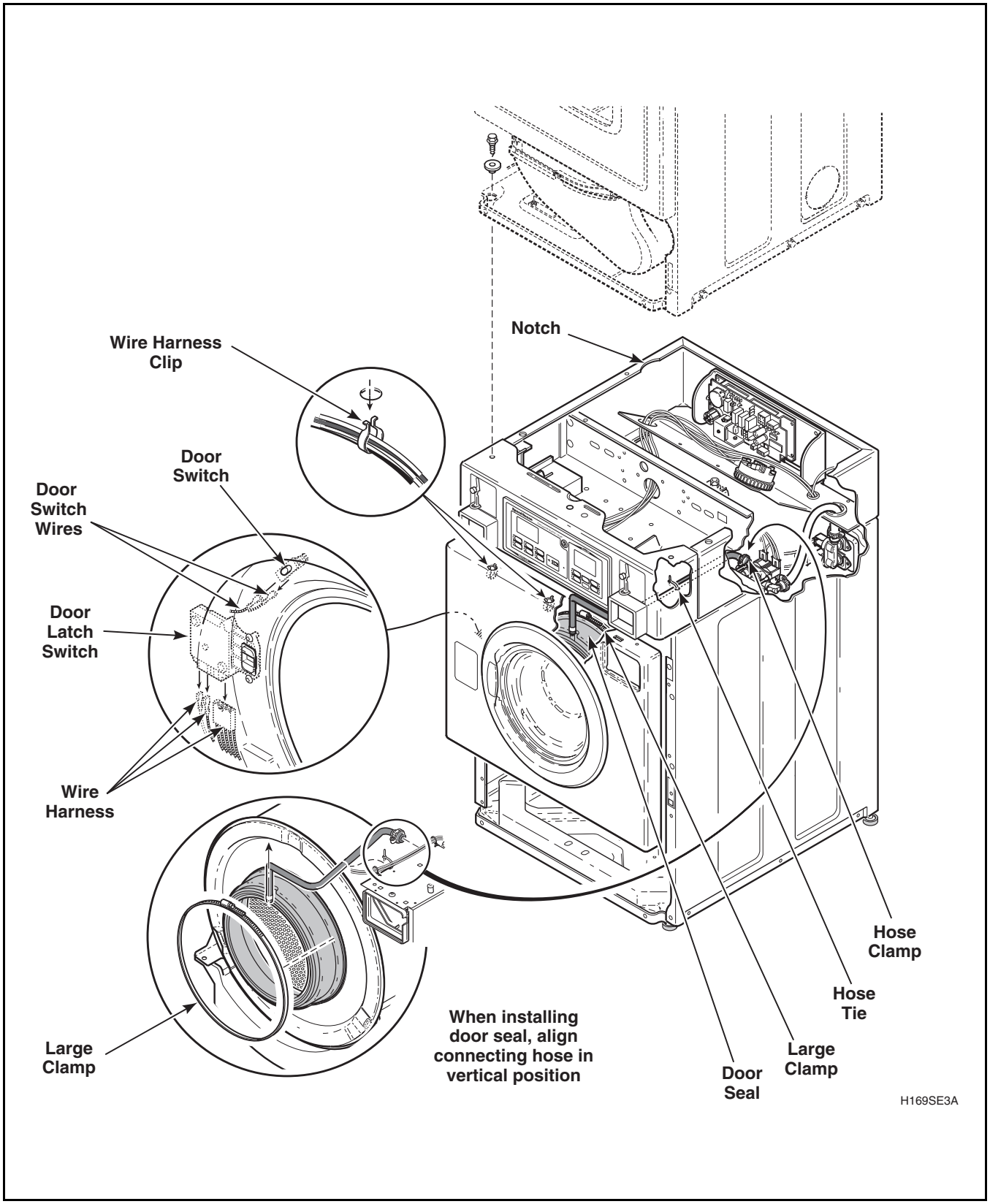

Figure 30

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

98. WASHER DOOR SWITCH

a. Open loading door.
b. Carefully remove wire clamp ring from groove with small flat screwdriver. Spring is located in the 6 o'clock position. Refer to *Figure 28*.
c. Grasp door seal and slide seal away from top half of the door opening. Refer to *Figure 28*.
d. Reach up between door seal and front panel. Refer to *Figure 31*. Press in on switch locking tabs and push switch out through front panel only far enough to allow removal of wires from switch terminals.

IMPORTANT: Refer to wiring diagram when rewiring switch.

99. WASHER DOOR LATCH SWITCH

a. Open loading door.
b. Carefully remove wire clamp ring from groove with small flat blade screwdriver. Spring is located in the 6 o'clock position. Refer to *Figure 28*.
c. Grasp loading door seal. Refer to *Figure 21*.
d. Using a circular motiion, pull seal up, out and down. Refer to *Figure 21*.
e. When seal releases from lip of front panel, pull out and remove the seal.
f. While supporting door lock from behind (through door opening), remove two Phillips head screws holding door latch switch to front panel. Refer to *Figure 31*.
g. Gently pull door lock out through door opening. Remove door lock only far enough to disconnect harness connector from door lock. Refer to *Figure 31*.

NOTE: When installing new door lock, be sure to install small lip through mounting hole first and then rotate lock into position.

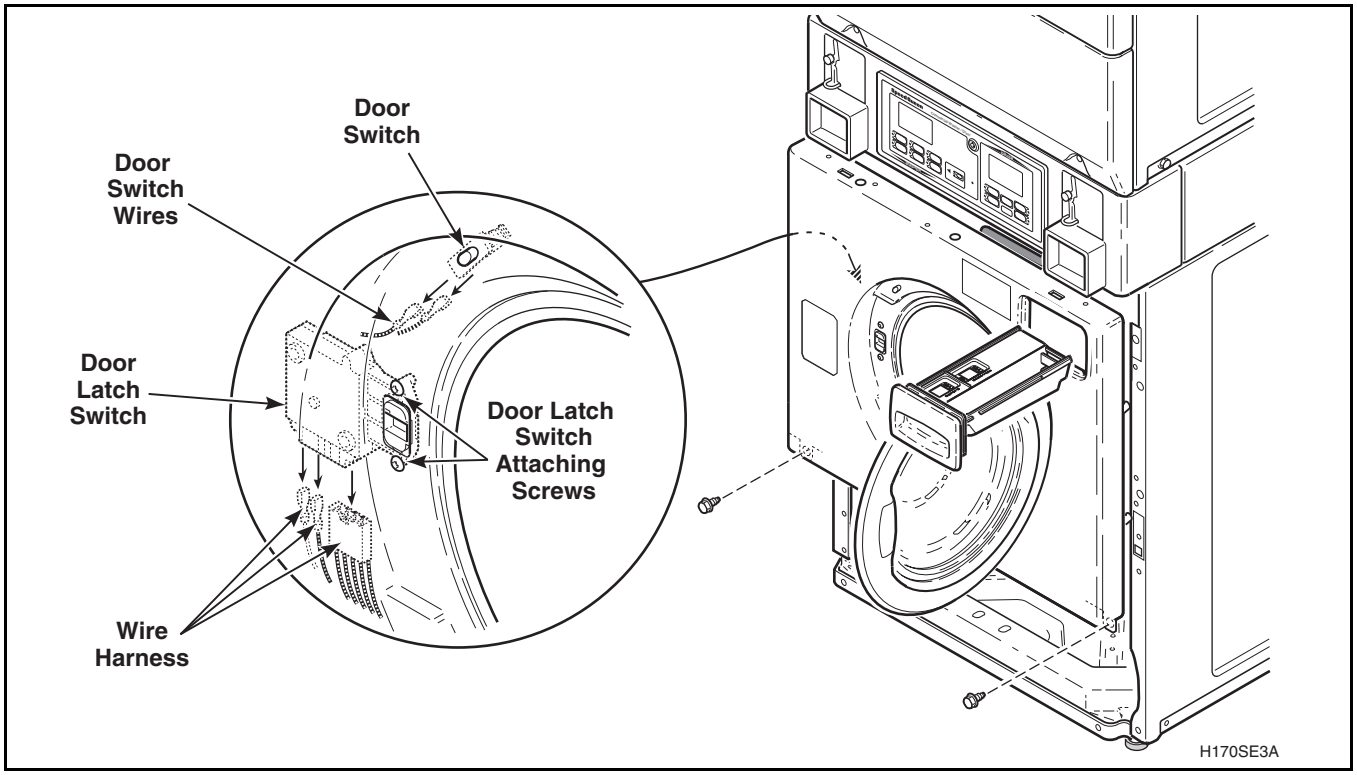

Figure 31

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

100. WASHER MOTOR

NOTE: Motor is removed out through front of washer, however, as an option, motor can be removed out through lower rear access panel opening on rear panel.

a. While supporting lower front access panel, remove two screws from bottom edge of panel. Refer to *Figure 23*.
b. Gently lower front access panel to disengage panel locators from bottom edge of front panel. Refer to *Figure 23*.
c. Run belt off pulley while slowly turning pulley.
d. Remove belt from motor shaft.

IMPORTANT: Use a magic marker and outline the washer on the front and rear adjusting bolt holding motor to the stainless steel motor bracket. Refer to ***Figure 32*****. This will help relocate motor within the motor bracket when reinstalling motor.**

e. Remove screw holding ground wire to motor frame. Refer to *Figure 32*.
f. Disconnect motor harness connector from motor.
g. While supporting the motor, grasp the metal rod with a locking pliers and remove four bolts and washers holding motor to motor bracket, *Figure 32*, and remove motor out through front of washer.

NOTE: Remove the back bolts and washers first, then remove the front bolts and washers.

h. Place new motor into washer and allow motor to rest on washer base.
i. Reconnect harness connector to new motor and reinstall screw holding ground wire to motor frame. Refer to *Figure 32*.
j. Lift motor into position within the motor bracket and install the front pivot bolt and washer. Refer to *Figure 32*. Then install the rear pivot bolt and washer. Leave bolt snug, do not tighten.
k. Pivot motor up into motor bracket and install the front adjusting bolt and washer. Refer to *Figure 32*. Then install rear adjusting bolt and washer. Leave bolts snug.

NOTE: Locate the magic marker spot made earlier on the motor bracket. Pivot motor so front adjusting bolts and washers are in these spots and tighten both front and rear adjusting bolts. Then tighten both pivot bolts.

l. Place belt on motor pulley, then carefully run belt on pulley while slowly turning pulley.
m. Open loading door, reach into inner basket and rotate inner basket several times by hand. Recheck belt alignment.
n. Reinstall lower front access panel. Refer to *Figure 23*.

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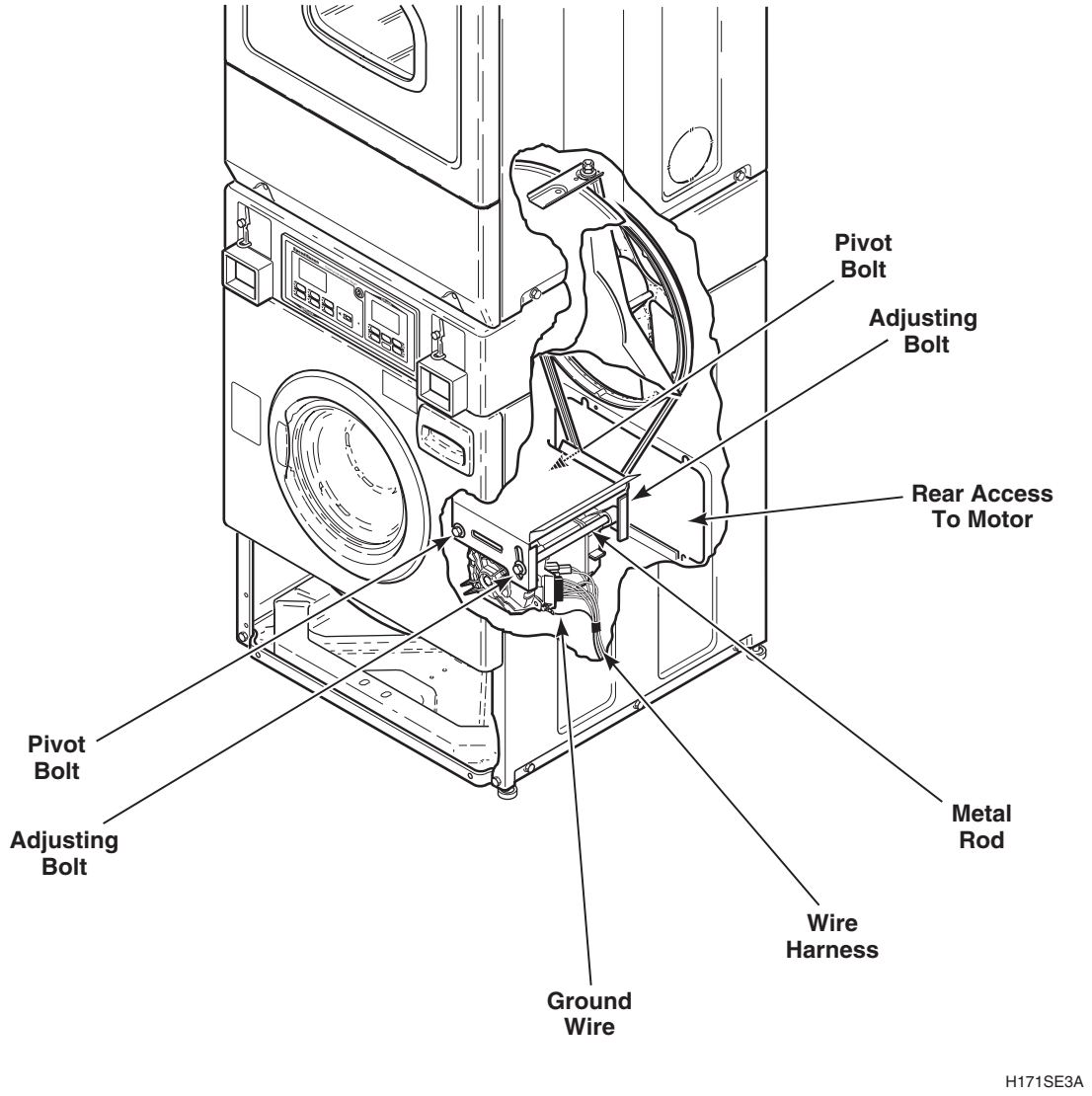

Figure 32

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

101. OUTER TUB FRONT PANEL

a. Remove control panel. Refer to *Paragraph 81* or *82*.
b. Working through control panel opening, remove two screws holding bottom flange of control cabinet front to top flange of front panel. Refer to *Figure 18*.
c. While supporting lower front access panel, remove two screws from bottom edge of panel. Refer to *Figure 23*.
d. Gently lower access panel to disengage panel locators from bottom edge of front panel. Refer to *Figure 23*.
e. Remove dispenser drawer using the special tool, No. 318P4. Refer to *Figure 20*.
f. Open loading door, carefully remove wire clamp ring from groove with small flat blade screwdriver. Spring is located at 6 o'clock position. Refer to *Figure 28*.
g. While supporting front panel, grasp loading door seal. Refer to *Figure 21*.
h. Using a circular motion, pull seal up, out and down. Refer to *Figure 21*.
i. When seal releases from lip of front panel, pull out and remove the seal.

NOTE: Door seal installation can be improved using water or soap solution to work seal around circumference of loading door opening. Be sure to orientate seal with the tab in the 12 o'clock position. When installing wire clamp ring to front panel, be careful not to overstretch tension spring.

j. Remove front panel (with loading door attached) away from washer as far as wires permit.
k. Unplug wire harness from both the door latch switch and from the door switch. Refer to *Figure 27*. Remove clips holding wire harness and door seal hose along top flange of front panel and remove front panel.

NOTE: The large wire clip holds both the wire harnesses and the door seal hose.

l. Loosen hose clamp and remove dispenser valve-to-door seal hose connection at the dispenser. Refer to *Figure 30*.

IMPORTANT: When installing door seal hose, pull hose tie tight to prevent damage. Refer to *Figure 30*.

m. Loosen large clamp holding door seal to front of outer tub. Carefully pull seal off front lip of outer tub front panel and remove door seal and hose. Refer to *Figure 30*.
n. Disconnect ground wire from outer tub front panel. Refer to *Figure 33*.
o. Remove nut, washers and screw holding clamp ring to outer tub front panel. Refer to *Figure 33*.
p. Remove rubber seal from outer tub front panel and discard seal.

IMPORTANT: Always replace seal with a new seal. Spray or apply a mixture of diluted laundry detergent to assist in installation of new seal. The "puffy" side of seal should be installed to the inside. For best results, tap clamp ring all around while tightening screw and nut.

NOTE: Install metal clamp ring by placing clamp ring opening at approximately the 10 o'clock position to ensure that no interference is encountered with side panel or the under side of the control cabinet. Tighten the clamp ring screw and nut until a spacing of one inch is achieved at the clamp ring opening or until tight.

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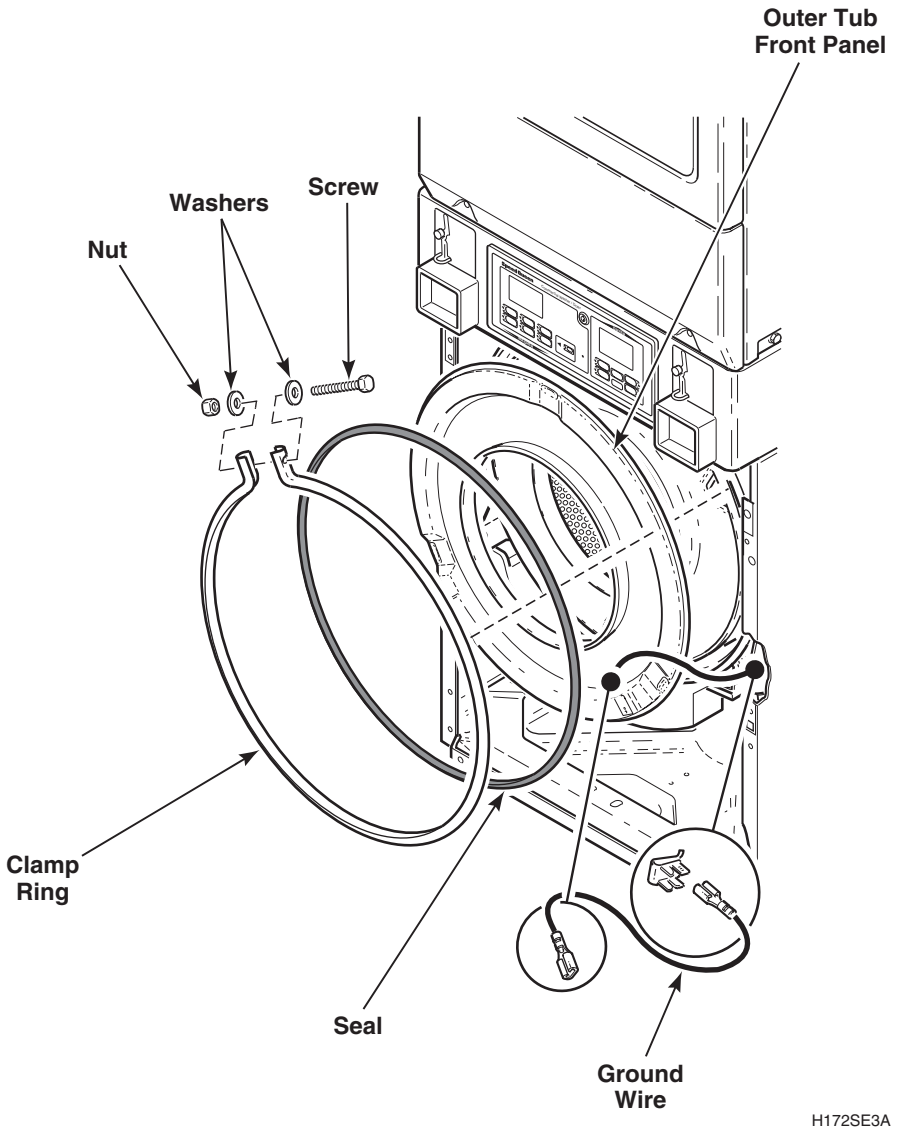

Figure 33

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

102. WASHER INNER BASKET PULLEY

a. Remove control panel. Refer to *Paragraph 81* or *82*.
b. Run belt off pulley while slowly turning pulley.
c. Remove belt from motor shaft.
d. Remove cap screw (left hand thread) lockwasher and flat washer holding pulley to inner basket shaft. Refer to *Figure 34*.
e. Remove pulley from shaft. Loosen setscrew, if present.

IMPORTANT: When installing pulley, always use a new cap screw to prevent screw from loosening during operation.

NOTE: When installing new cap screw, apply a thread locking compound to screw threads and torque new cap screw to 240 minimum to 260 maximum inch pounds (27.5 to 29.7 Nm).

f. After installing belt, adjust belt tension per *Paragraph 134*.

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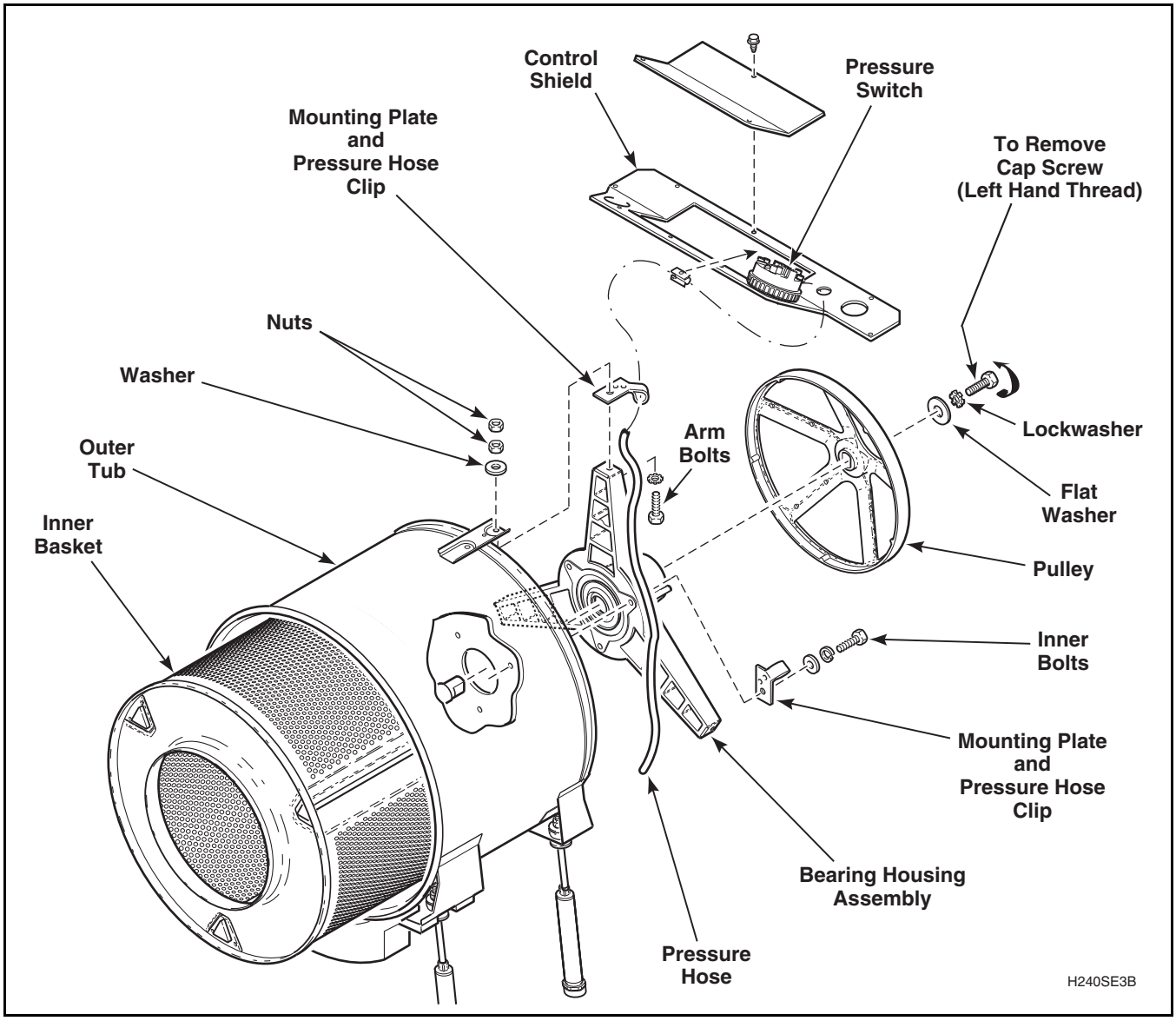

Figure 34

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

103. WASHER INNER BASKET ASSEMBLY

Inner Basket Removal –

a. Remove control panel. Refer to *Paragraph 81* or *82*.
b. While supporting lower front access panel, remove two screws from bottom edge of lower access panel. Refer to *Figure 23*.
c. Gently lower access panel to disengage panel locators from bottom edge of front panel.
d. Run belt off pulley while slowly turning pulley.
e. Remove belt from motor shaft.
f. Remove cap screw (left hand thread) lockwasher and flat washer holding pulley to inner basket shaft. Refer to *Figure 34*.
g. Remove pulley from shaft.

IMPORTANT: When installing pulley, always use a new cap screw to prevent screw from loosening during operation.

NOTE: When installing new cap screw, apply a thread locking compound to screw threads and torque new cap screw to 240 minimum to 260 maximum inch pounds (27.5 to 29.7 Nm).

h. Remove dispenser drawer using special tool, No. 318P4. Refer to *Figure 20*.
i. Working through the control panel opening, remove two screws holding bottom flange of control cabinet front to top flange of front panel, refer to *Figure 18*, then remove bottom two corner screws. Refer to *Figure 27*.
j. Open loading door. Carefully remove wire clamp ring from groove with small flat blade screwdriver. Spring is located in the 6 o'clock position. Refer to *Figure 28*.
k. Grasp the door seal. Refer to *Figure 21*.
l. Using a circular motion, pull seal up, out and down. Refer to *Figure 21*.
m. When seal releases from lip of front panel, pull out and remove the seal.
n. Remove front panel (with loading door attached) away from washer as far as wires permit. Refer to *Figure 30*.
o. Unplug wire harness from both the door latch switch and from the door switch. Refer to *Figure 27*. Remove clips holding wire harness and door seal hose along top flange of front panel and remove front panel.

NOTE: Refer to wiring diagram when rewiring door switch.

p. Loosen clamp and remove dispenser valve-to-door seal hose at dispenser. Refer to *Figure 30*.

IMPORTANT: When installing door seal hose, pull hose tie tight to prevent damage. Refer to *Figure 30*.

q. Loosen clamp and remove door seal off front of outer tub. Refer to *Figure 30*.
r. Disconnect ground wire from outer tub front panel. Refer to *Figure 33*.
s. Remove nut, washers and screw holding clamp ring to outer tub front panel. Refer to *Figure 33*.
t. Remove rubber seal from outer tub front panel and discard.

IMPORTANT: Always replace seal with a new seal. Spray or apply a mixture of diluted laundry detergent to assist in installation of new seal. The "puffy" side of seal should be installed to the inside. For best results, tap clamp ring all around while tightening screw and nut.

NOTE: Install metal clamp ring by placing clamp ring opening at approximately the 10 o'clock position to ensure that no interference is encountered with side panel or the underside of the control cabinet. Tighten the clamp ring screw and nut until a spacing of one inch is achieved at the clamp ring opening or until tight.

u. Carefully remove inner basket out through front of washer.

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
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- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

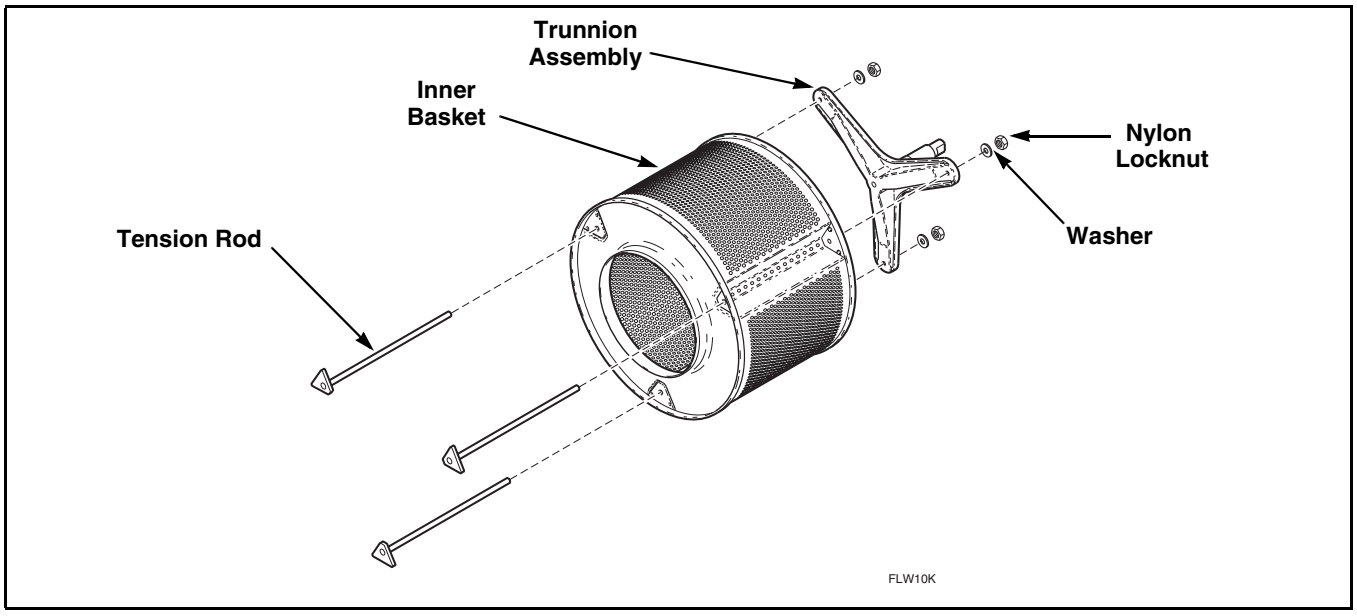

Figure 35

Installing 800749P Trunnion Kit or 800198P Inner Basket Kit –

a. Remove nuts, washers and tension rods holding trunnion to inner basket. Refer to *Figure 35*.
b. If using existing trunnion, clean out old Loctite from pulley bolt threads using a 3/8-24 UNF Left Hand Tap.
c. Dip threads of three new tension rods into lightweight oil.
d. Insert tension rods into inner basket. Refer to *Figure 35*. Position each rod so the rounded corner of triangular head faces the center of inner basket. Refer to *Figure 36*.
e. Position trunnion assembly through rods and onto inner basket.
f. Attach three washers and three new nylon locknuts onto rods. Leave the nuts loose.

IMPORTANT: Always use new nylon locknuts.

g. Carefully center trunnion on basket and torque nuts to about 50 inch-pounds.
h. Install inner basket/trunnion assembly into washer. Do not bolt down at this time.

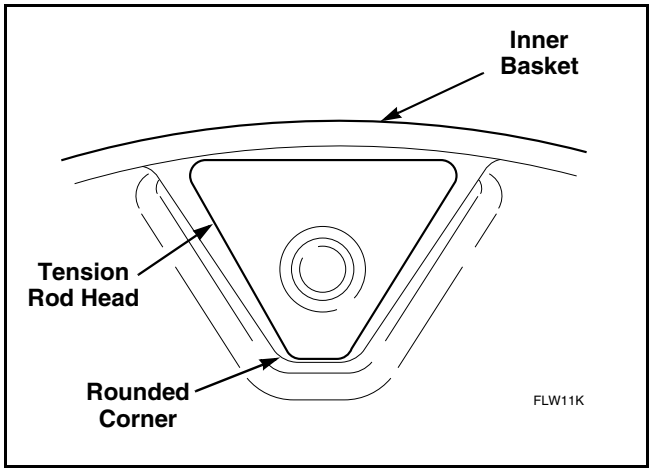

Figure 36

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

i. Check for concentricity/roundness of assembly. Use a dial indicator to check that concentricity at the inside edge of inner basket lip is a maximum of .05 inch TIR (Total Indicator Runout). Refer to *Figure 37*. If concentricity is not within .05 inch, remove assembly from washer and adjust location of trunnion. Repeat until concentricity is within .05 inch.

j. Remove inner basket/trunnion assembly from washer and evenly torque three nuts to 200 ± 10 inch-pounds.

k. Recheck that concentricity is still within .05 inch.

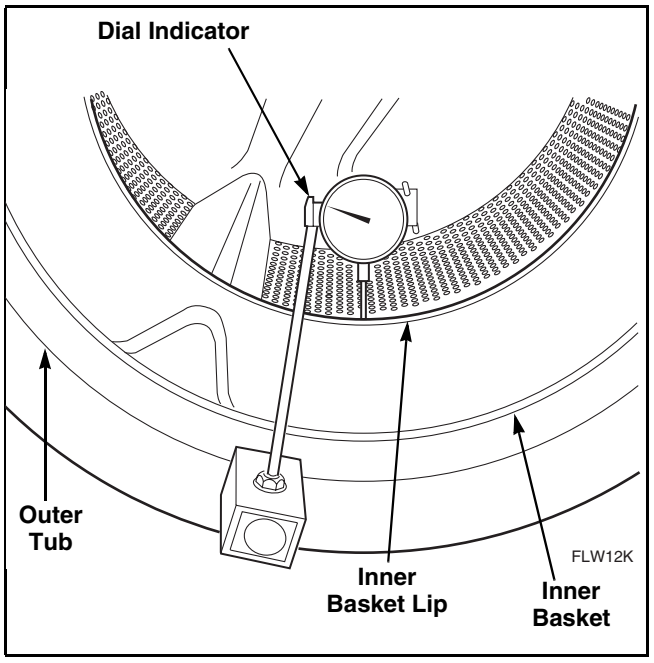

Figure 37

Inner Basket Installation –

a. Apply No. 27604P Anti-Seize Compound to the area of the trunnion shaft that will be contacting the front and rear bearings. Refer to *Figure 38*.

b. Apply a film of grease to area of shaft that will be contacting the bearing housing seal. Refer to *Figure 38*. Make sure seal lips also are packed with grease. Refer to *Figure 38*.

IMPORTANT: When installing inner basket, the following steps must be taken to ensure that the seal is properly orientated:

c. Install inner basket assembly by pushing all the way into outer tub. Refer to *Figure 39*, *Step 1*.

d. Slightly pull out inner basket about 1/4 inch to ensure that the bearing housing seal lips are not rolled over. Refer to *Figure 39*, *Step 2*.

NOTE: If inner basket is pulled out more than 3/8 inch (past step on trunnion shaft), repeat Steps "c" and "d".

e. Fully reseat inner basket. Refer to *Figure 39*, *Step 3*.

f. Install pulley and cap screw. Be careful not to push the shaft forward while tightening the screw.

IMPORTANT: When installing pulley, always use a new cap screw to prevent screw from loosening during operation. Use a thread tap to clean old Loctite out of pulley screw receiving hole before installing new screw. This ensures that inner basket and pulley properly seat.

NOTE: When installing new cap screw, apply a thread locking compound to screw threads and torque new cap screw to 240 minimum to 260 maximum inch pounds (27.5 to 29.7 Nm).

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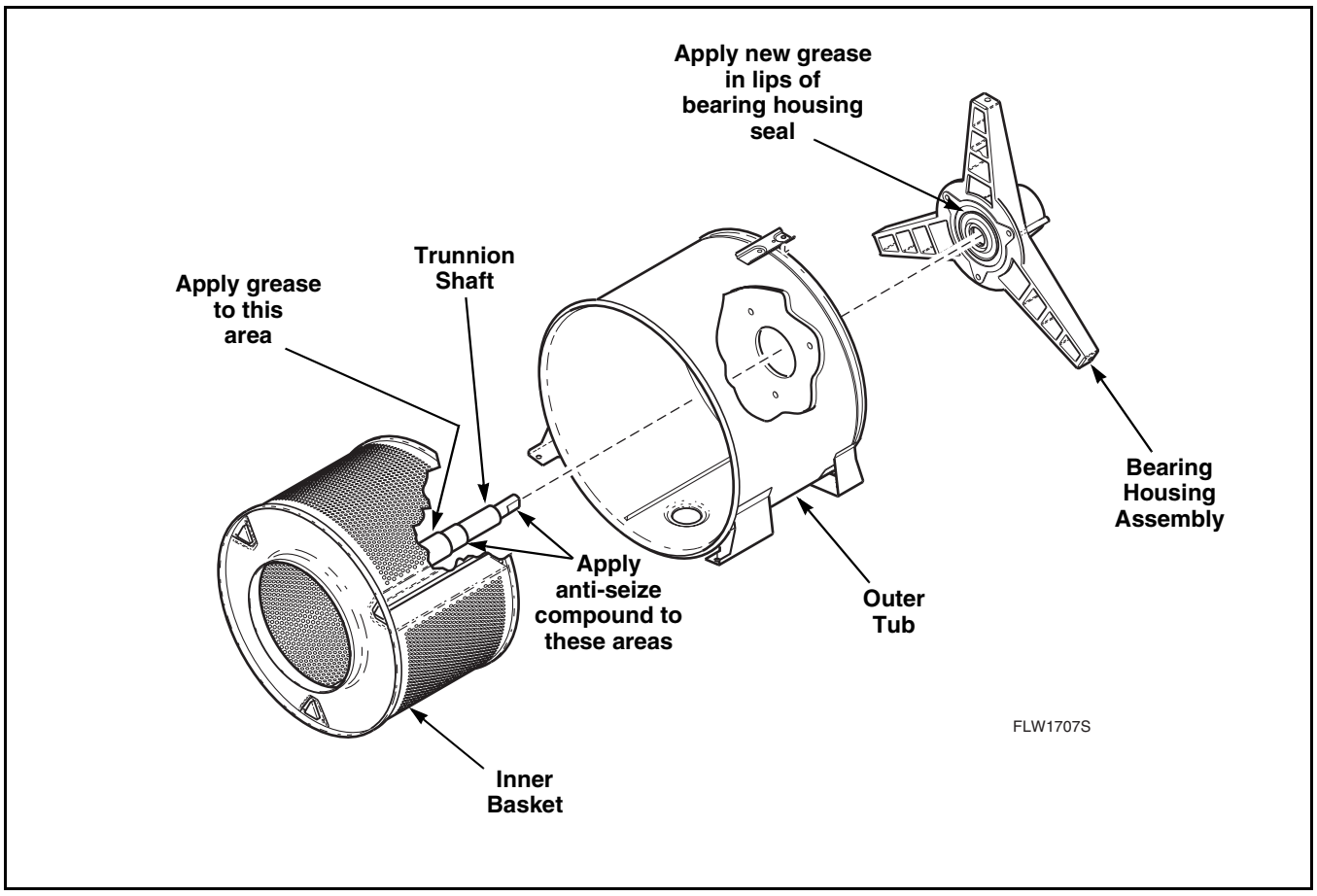

Figure 38

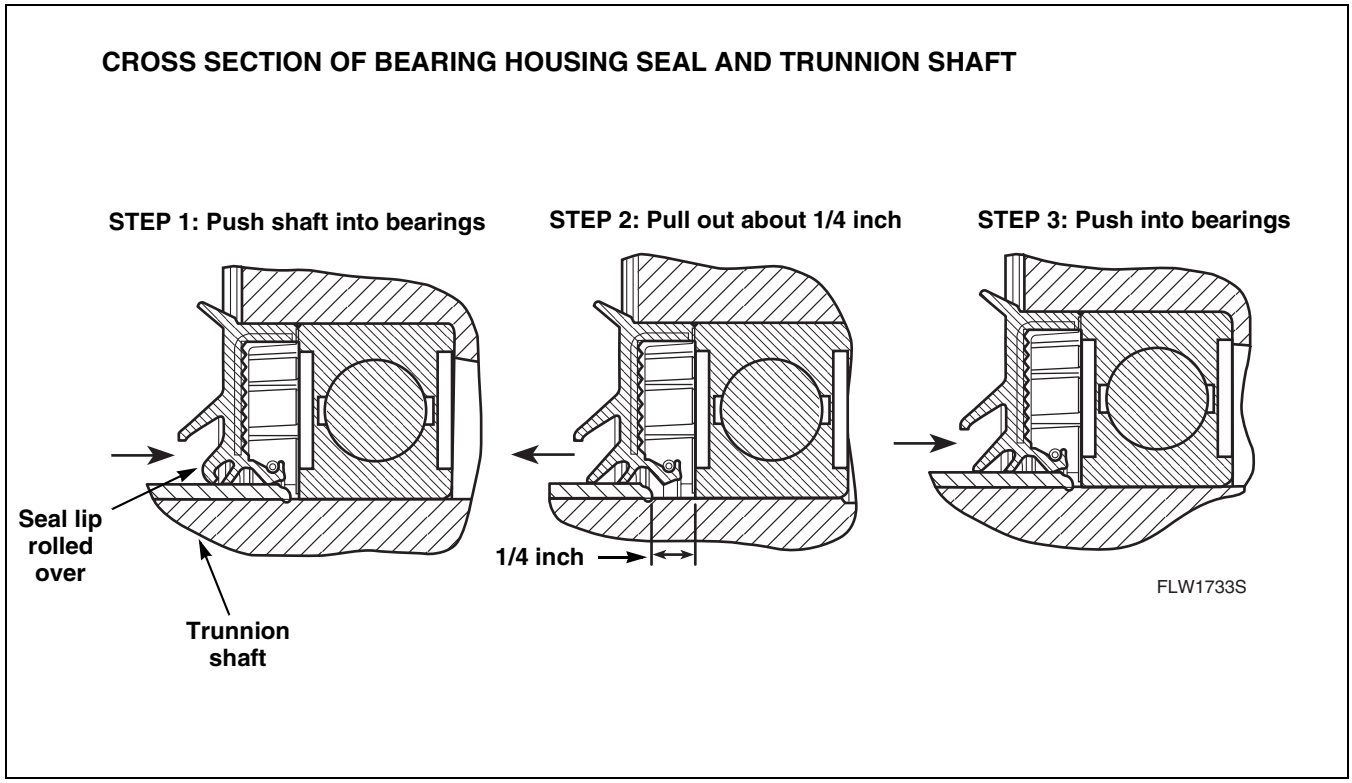
CROSS SECTION OF BEARING HOUSING SEAL AND TRUNNION SHAFT
STEP 1: Push shaft into bearings
STEP 2: Pull out about 1/4 inch
STEP 3: Push into bearings
Seal lip rolled over
1/4 inch
FLW1733S
Trunnion shaft

Figure 39

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

104. BEARING HOUSING

a. Remove dryer. Refer to *Paragraph 80*.
b. Remove control panel. Refer to *Paragraph 81* or *82*.
c. While supporting lower front access panel, remove two screws from bottom edge of panel. Refer to *Figure 23*.
d. Gently lower front access panel to disengage panel locators from bottom edge of front panel.

IMPORTANT: When installing pulley, always use a new cap screw to prevent screw from loosening during operation.

NOTE: When installing new cap screw, apply a thread locking compound to screw threads and torque new cap screw to 240 minimum to 260 maximum inch pounds (27.5 to 29.7 Nm).

e. Remove dispenser drawer using special tool, No. 318P4. Refer to *Figure 20*.
f. Working through the control panel opening, remove two screws holding bottom flange of control cabinet front to top flange of front panel, then remove bottom two corner screws. Refer to *Figure 27*.
g. Open loading door. Carefully remove wire clamp ring from groove with small flat blade screwdriver. Spring is located in the 6 o'clock position. Refer to *Figure 28*.
h. Grasp the door seal. Refer to *Figure 21*.
i. Using a circular motion, pull seal up, out and down. Refer to *Figure 21*.
j. When seal releases from lip of front panel, pull out and remove the seal.
k. Remove front panel (with loading door attached) away from washer as far as wires permit. Refer to *Figure 30*.
l. Unplug door lock harness connectors and the wire harness clips along top flange of front panel. Refer to *Figure 30*. Disconnect wires from door switch and remove front panel with loading door attached.

NOTE: Refer to wiring diagram when rewiring door switch.

m. Loosen clamp and remove door seal hose connection at dispenser. Refer to *Figure 30*.

IMPORTANT: When installing door seal hose, pull hose tie tight to prevent damage. Refer to *Figure 30*.

n. Loosen large clamp and remove door seal off front of outer tub. Refer to *Figure 30*.

NOTE: Door seal installation can be improved using water or soap solution to work seal around circumference of loading door opening. Be sure to orientate seal with the tab in the 12 o'clock position.

o. Disconnect ground wire from outer tub front panel. Refer to *Figure 33*.
p. Remove nut, washers and screw holding clamp ring to outer tub front panel. Refer to *Figure 33*.
q. Remove rubber seal from outer tub front panel and discard.

IMPORTANT: Always replace seal with a new seal. Spray or apply a mixture of diluted laundry detergent to assist in installation of new seal. The "puffy" side of seal should be installed to the inside for best results.

NOTE: Install clamp screw with threads and nut facing downward. Refer to *Figure 33*. Install metal clamp ring by placing clamp ring opening at approximately the 10 o'clock position to ensure no interference is encountered with side panel or the underside of the control cabinet. Tighten screw and nut until a spacing of one inch is achieved at the clamp ring opening. Tap clamp ring all around while tightening the screw and nut.

r. Run belt off pulley while slowly turning pulley.
s. Remove belt from motor shaft.
t. Remove cap screw (left hand thread), lockwasher and flat washer holding pulley to inner basket shaft. Refer to *Figure 34*.
u. Remove pulley from shaft.
v. Carefully remove inner basket out through front of washer.

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WARNING

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- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

NOTE: When installing inner basket, first clean shaft, then apply No. 27604P Anti-Seeze Compound to the area of inner basket shaft that will be contacting the front and rear bearings.

w. Remove three screws holding bearing housing arms to outer tub.

IMPORTANT: Prior to disassembly, note the position of the pressure hose, hose clips and mounting plate so parts can be reinstalled in the same position. Refer to *Figure 34*.

x. While supporting bearing housing, remove three inner screws holding bearing housing to rear of outer tub. Refer to *Figure 34*.

Bearing Housing Installation –

NOTE: When installing the bearing housing, be sure to route the pressure hose under the right arm and attach hose and pressure hose clip to mounting plate. Refer to *Figure 34*. Then route pressure hose up to the hose mounting plate on the top arm. Refer to *Figure 34*. Make sure there is no slack between these two points.

IMPORTANT: The three arm bolts should always be tightened first and torqued to 275 inch pounds (31.46 Nm). Then tighten the three inner bolts and torque to 150 inch pounds (17.16 Nm).

NOTE: If a bearing failure should occur, a new bearing housing assembly should always be used. The bearings and seal are not serviceable parts. Make sure the new bearing housing seal has lubrication in all groves before installation. If not, lubricate seal with No. 685619 Lubricant.

a. Apply No. 27604P Anti-Seize Compound to the area of the trunnion shaft that will be contacting the front and rear bearings. Refer to *Figure 38*.

b. Apply a film of grease to area of shaft that will be contacting the bearing housing seal. Refer to *Figure 38*. Make sure seal lips also are packed with grease. Refer to *Figure 38*.

IMPORTANT: When installing inner basket, the following steps must be taken to ensure that the seal is properly orientated:

c. Install inner basket assembly by pushing all the way into outer tub. Refer to *Figure 39*, *Step 1*.
d. Slightly pull out inner basket about 1/4 inch to ensure that the bearing housing seal lips are not rolled over. Refer to *Figure 39*, *Step 2*.

NOTE: If inner basket is pulled out more than 3/8 inch (past step on trunnion shaft), repeat Steps "c" and "d".

e. Fully reseat inner basket. Refer to *Figure 39*, *Step 3*.
f. Install pulley and cap screw. Be careful not to push the shaft forward while tightening the screw.

IMPORTANT: When installing pulley, always use a new cap screw to prevent screw from loosening during operation. Use a thread tap to clean old Loctite out of pulley screw receiving hole before installing new screw. This ensures that inner basket and pulley properly seat.

NOTE: When installing new cap screw, apply a thread locking compound to screw threads and torque new cap screw to 240 minimum to 260 maximum inch pounds (27.5 to 29.7 Nm).

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

105. DRYER ACCESS PANEL

Refer to *Figure 40*.

a. While supporting access panel, remove two screws from bottom edge of panel.
b. Gently lower access panel to disengage panel locators from bottom edge of front panel.
c. Remove access panel.

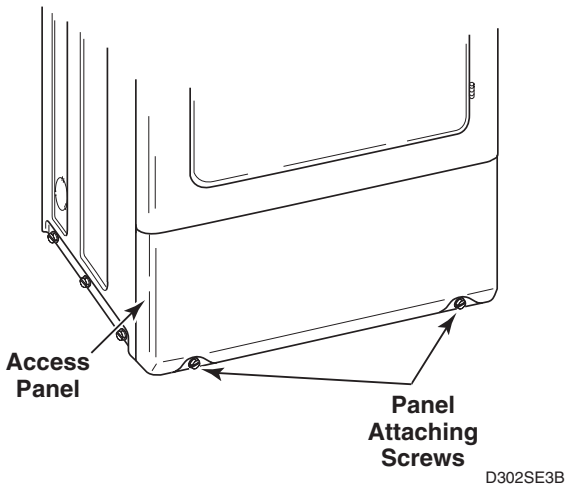

Figure 40

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WARNING

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- **Close gas shut-off valve to gas dryer before servicing.**
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- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

106. CABINET TOP

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower access panel to disengage panel locators from bottom edge of access panel. Refer to *Figure 40*.
c. Remove two screws holding bottom tabs on front panel to dryer cabinet. Refer to *Figure 41*.
d. Swing bottom of front panel away from dryer to disengage hold-down clips and locators from cabinet top.
e. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

f. Remove two screws holding cabinet top to front flange of cabinet. Refer to *Figure 42*.
g. Lift cabinet top to a vertical position by hinging it on the rear hold-down brackets. Refer to *Figure 43*.

NOTE: While servicing, cabinet top may be raised and hinged on the rear hold-down brackets or supported against wall behind dryer.

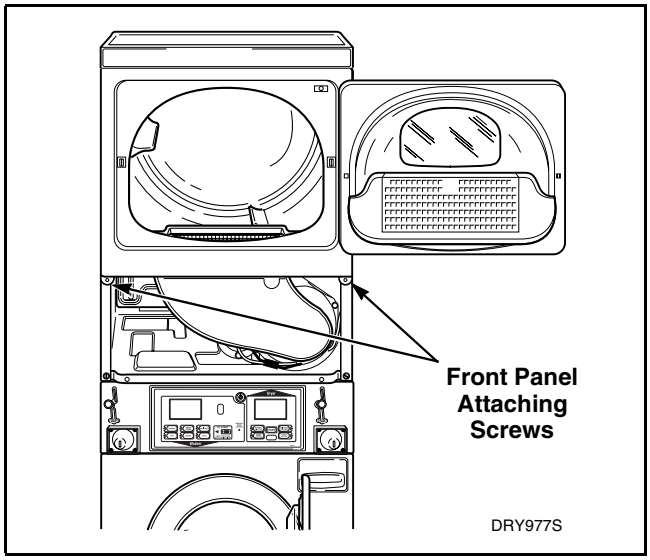

Figure 41

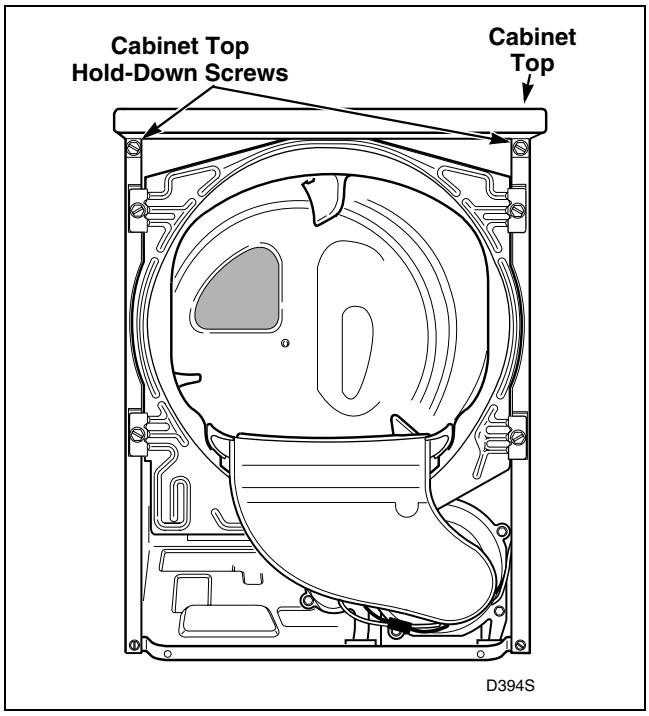

Figure 42

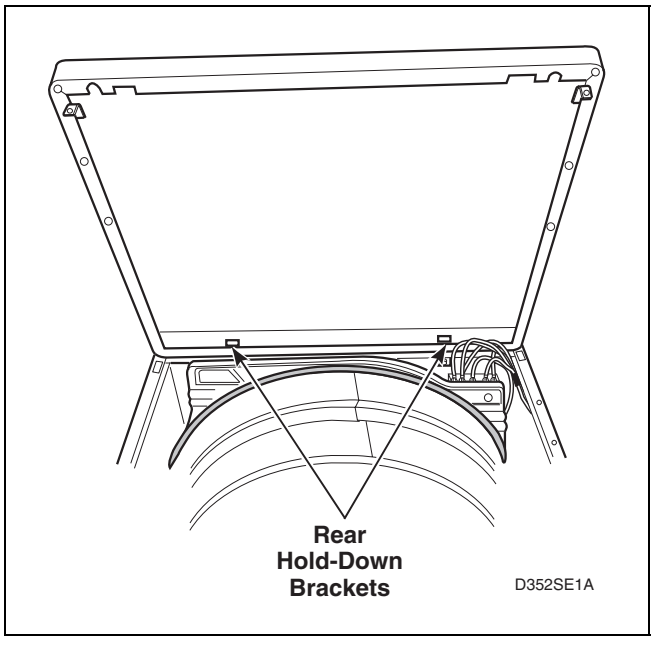

Figure 43

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

107. LINT FILTER

a. Open loading door and remove screw from end of lint filter. Refer to *Figure 44*.
b. Lift lint filter out of air duct, paying close attention to orientation.

IMPORTANT: When installing lint filter, be sure to install the filter with the words facing the front of the dryer. If filter is installed backwards, lint will accumulate in exhaust system, which can adversely affect dryer performance.

108. LOADING DOOR AND DOOR HINGE

a. Open loading door.
b. Remove screws holding loading door to hinges. Refer to *Figure 44*.

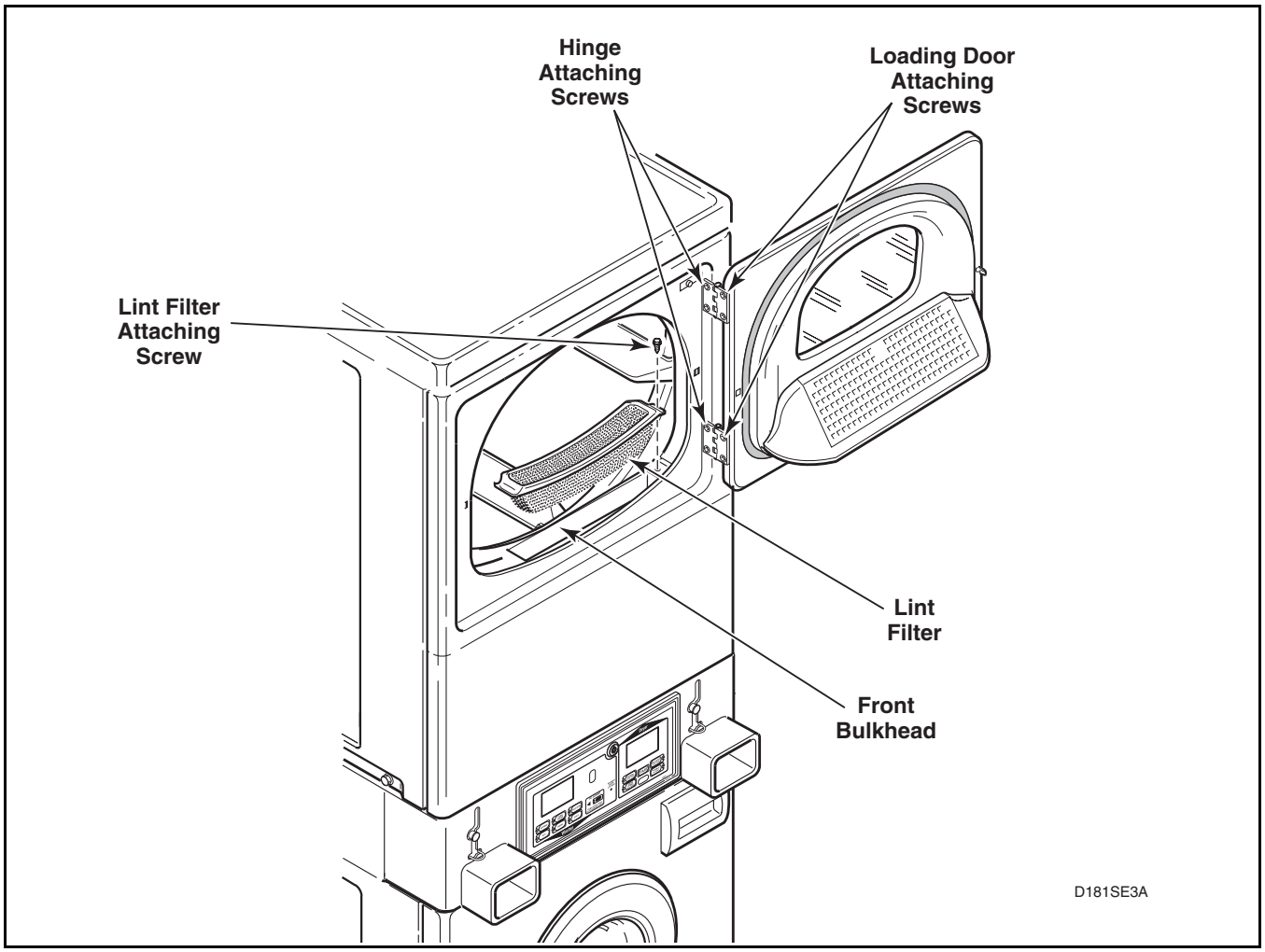

Figure 44

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

109. DRYER INNER AND OUTER DOOR PANELS AND DOOR PULL

a. Remove four screws holding door assembly to hinges. Refer to *Figure 44*.
b. Remove remaining screws around the door perimeter and separate panels. Refer to *Figure 45*.
c. Remove wedge (located behind door pull) by carefully prying up on center of wedge. Refer to *Figure 45*.
d. Remove door pull. Refer to *Figure 45*.

110. DRYER DOOR STRIKE

a. Open loading door.
b. Remove screw holding door strike and bracket to loading door and remove strike and bracket. Refer to *Figure 45*.

NOTE: You may have to loosen the two screws on end of door to allow for strike and bracket removal.

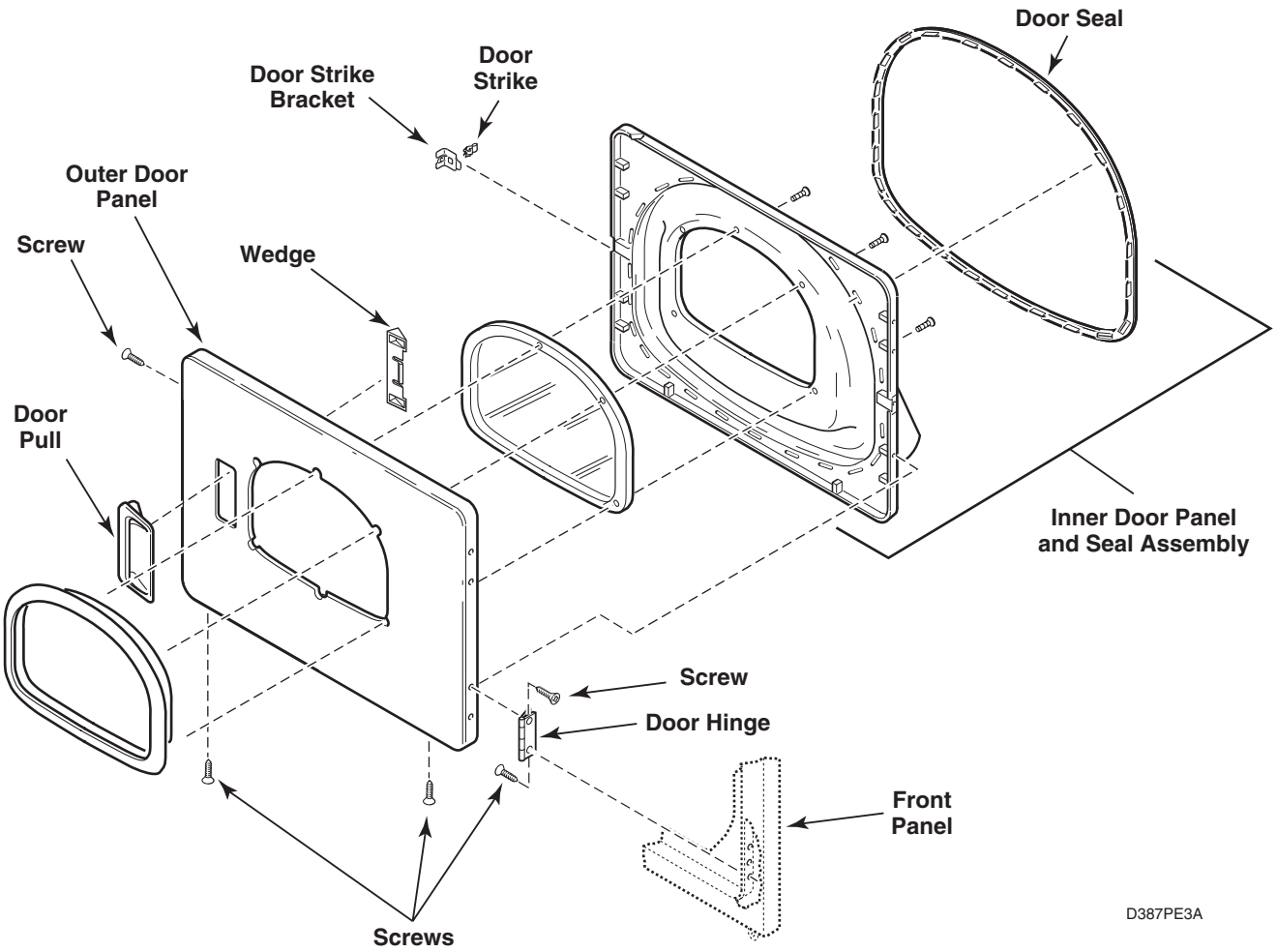

Figure 45

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

111. DRYER DOOR SEAL

a. Remove inner door panel from outer door panel. Refer to *Paragraph 109*.

b. Grasp either end of door seal at bottom of door and remove seal from tabs on inner door panel by gently pulling on the seal. Refer to *Figure 46*.

NOTE: When replacing seal, be sure seal is not stretched or distorted. The tab in the seal should be installed in each slot of the inner door panel, shown in *Figure 46*. The split in the seal must be at the bottom of the door. Make sure that each tab of the seal is fully engaged into the slot.

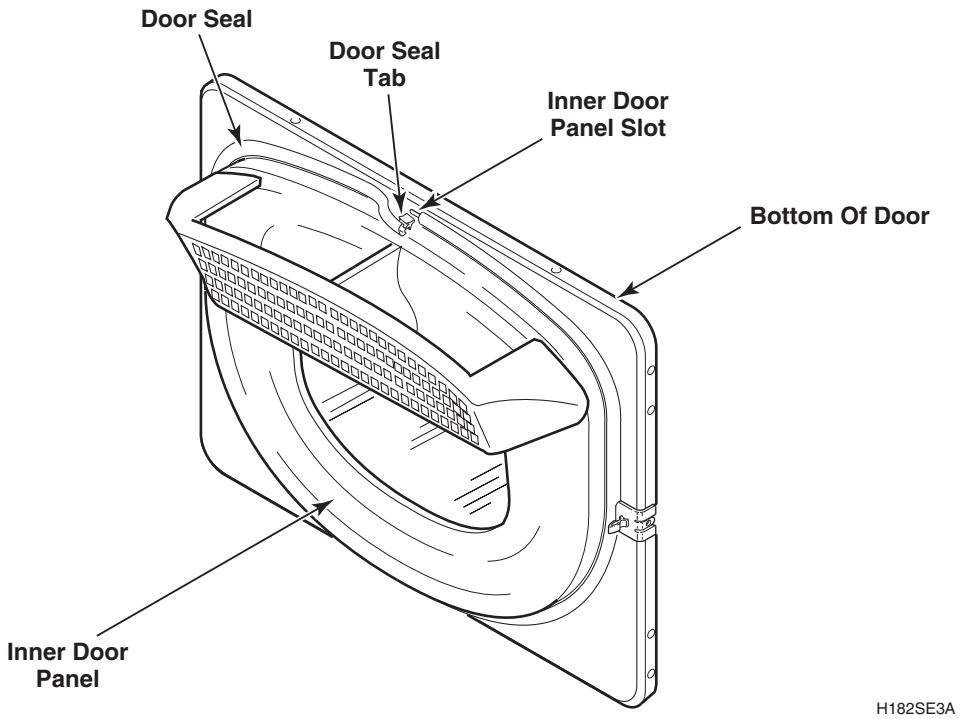

Figure 46

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

112. DRYER FRONT PANEL AND PANEL SEAL

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.

b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.

c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.

d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Remove front panel seal from flange around inside of door opening.

NOTE: Be sure seal is properly positioned when installing on front panel.

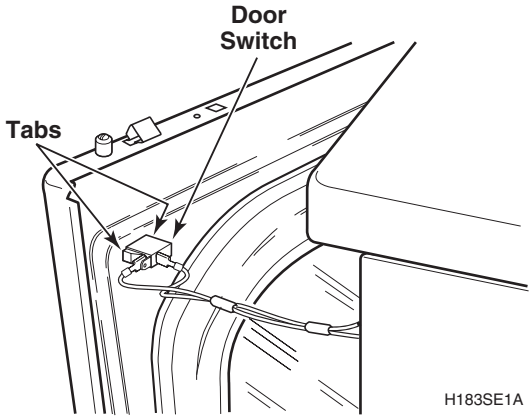

Figure 47

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WARNING

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- **Close gas shut-off valve to gas dryer before servicing.**
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- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

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113. DRYER DOOR SWITCH

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.
d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Depress tabs on switch and push out of front panel. Refer to *Figure 47*.

114. DRYER DOOR CATCH

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.
d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Depress tabs on top and bottom of catch and push out of front panel.

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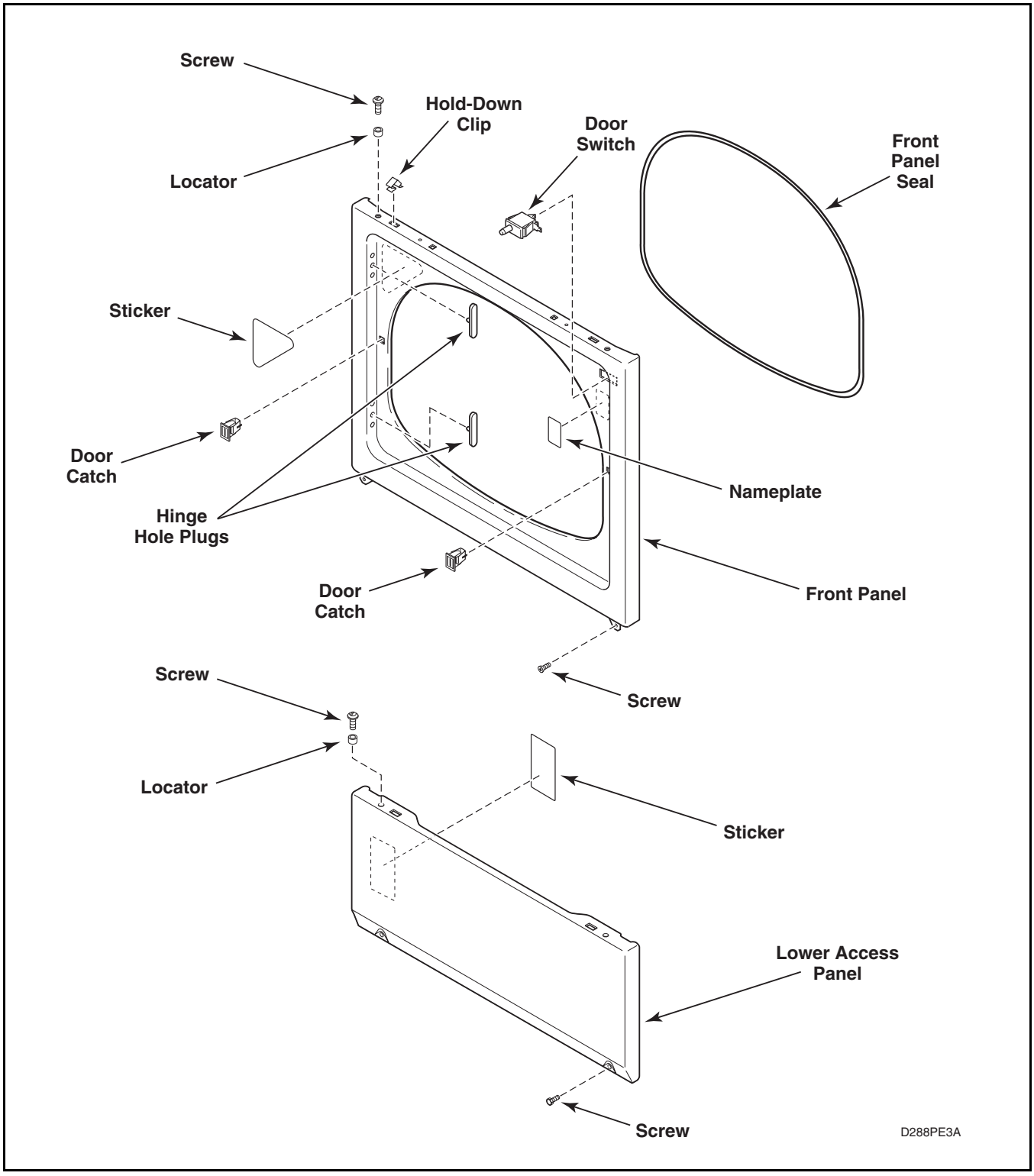

Figure 48

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

115. DRYER DOOR HINGE

a. Open loading door and, while supporting door, remove four screws holding door assembly to hinges. Refer to *Figure 49*.

b. Remove four screws holding hinges to front panel. Refer to *Figure 49*.

116. DRYER HOLD-DOWN CLIPS AND LOCATORS

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.

b. Gently lower access panel to disengage panel locators from bottom edge of front panel.

c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom edge of front panel away from dryer far enough to disengage hold-down clips and panel locators from cabinet top.

d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Compress hold-down clips and remove from top of front panel. Refer to *Figure 48*.

f. Remove four screws holding four locators to access panel or front panel. Refer to *Figure 48*.

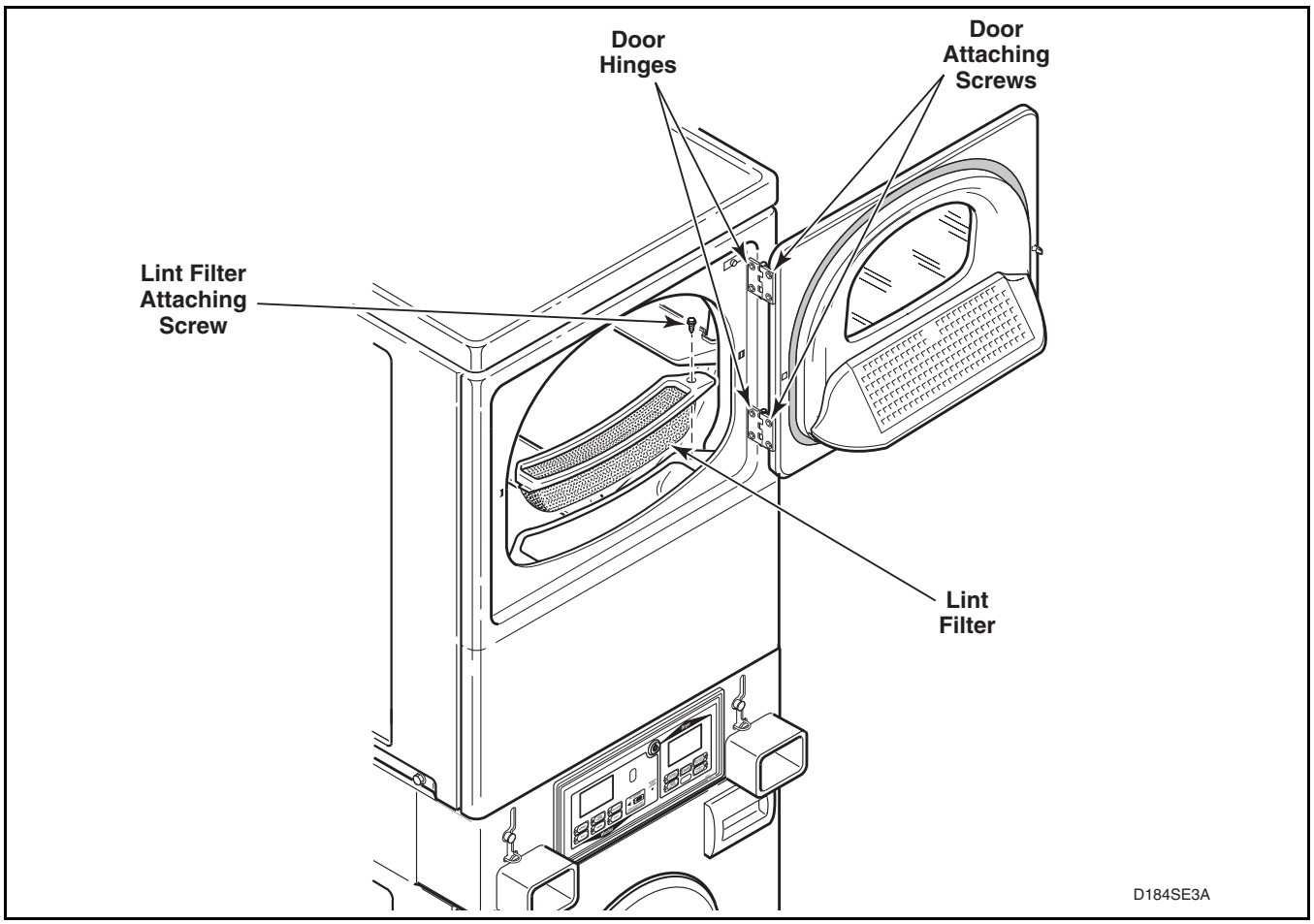

Figure 49

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WARNING

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- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

117. BURNER SYSTEM COMPONENTS (Gas Models)

a. **Complete Gas Valve Assembly.**

(1) While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.

(2) Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.

(3) Close main gas shut-off valve, disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 50*.

(4) Disconnect gas shut-off valve from gas valve at the union nut. Refer to *Figure 50*.

(5) Remove three screws holding valve and mounting bracket to base. Refer to *Figure 50*.

(6) Lift gas valve and mounting bracket from base. Refer to *Figure 50*.

NOTE: The holding and booster coil, and secondary coil can be replaced individually.

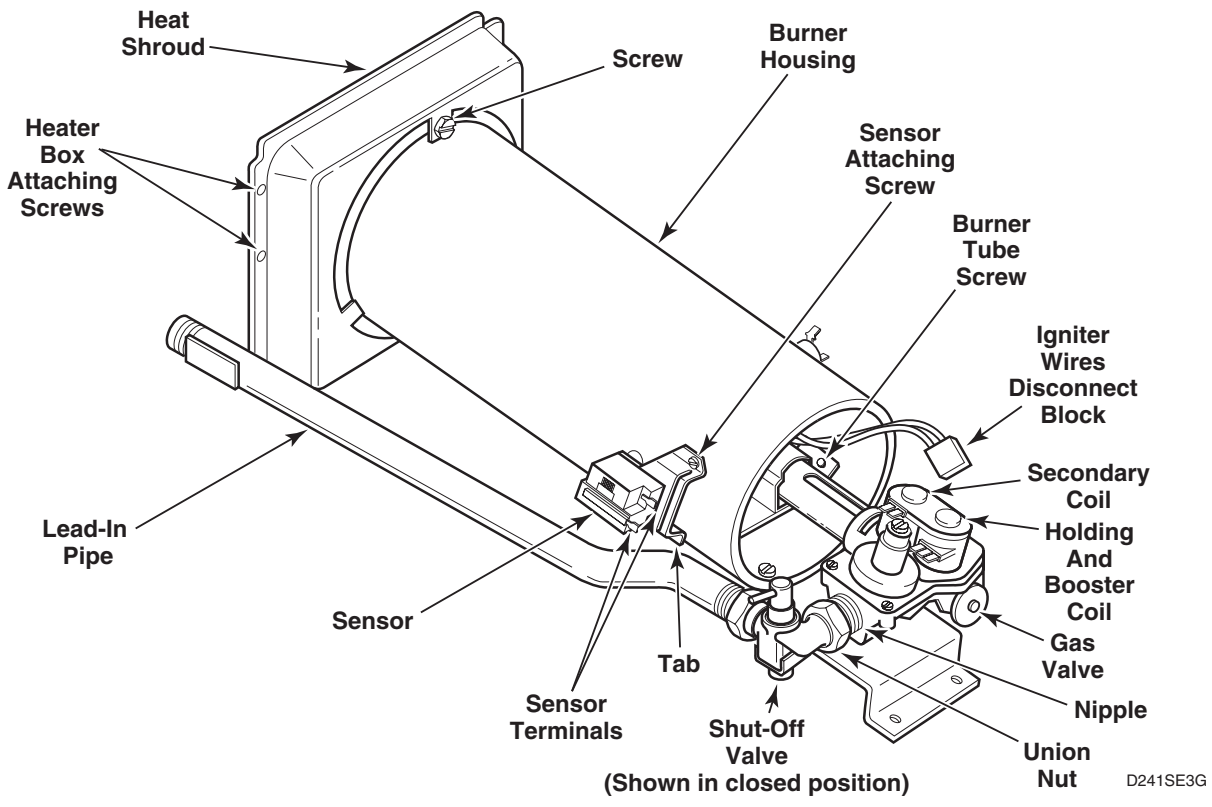

Figure 50

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

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b. **Burner Tube, Igniter and Bracket**

NOTE: Burner tube and igniter can be removed without removing gas valve and bracket.

(1) Remove one screw from right side of burner housing holding burner tube in place. Refer to *Figure 52*.
(2) Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 50*.
(3) Carefully rotate burner tube and igniter **counterclockwise** so tab is at 8 o'clock position.
(4) Move air shutter end of burner tube slightly to right and CAREFULLY remove burner tube and igniter assembly out through front of dryer.
(5) Remove screw holding igniter and bracket to burner tube and remove igniter and bracket. Refer to *Figure 51*.

IMPORTANT: Use care while removing igniter to avoid damage. The igniter is very fragile.

IMPORTANT: Handle igniter by grasping the white ceramic portion of bracket only. DO NOT handle silicon carbide portion of igniter with hands or allow it to be contaminated by oil, grease or other foreign material. Oil, grease and other impurities or hairline cracks will cause igniter to burn out.

c. Sensor
(1) While supporting access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
(2) Gently lower access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
(3) Remove wires from sensor terminals. Refer to *Figure 50*.
(4) Remove screw holding sensor to burner housing. Refer to *Figure 50*.

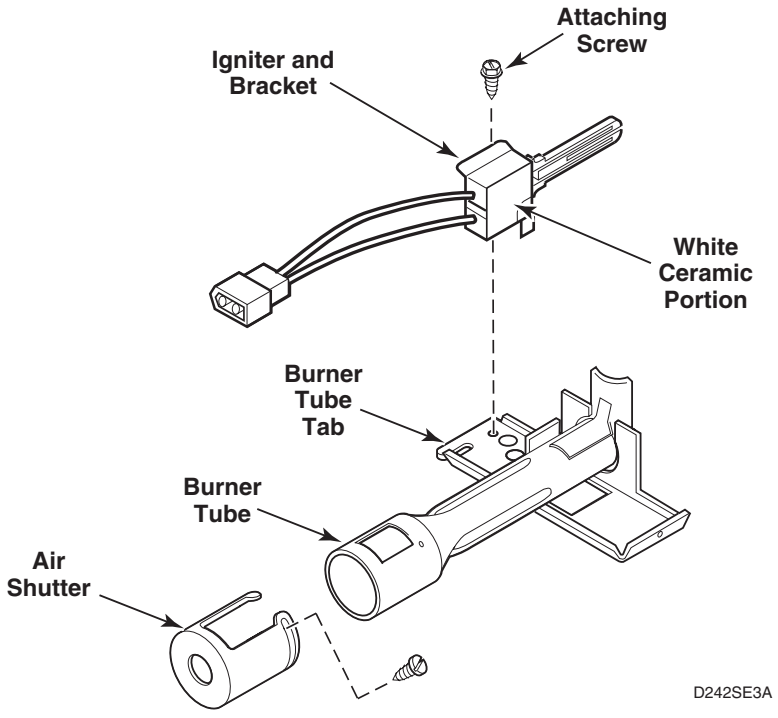

Figure 51

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WARNING

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- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

118. BURNER HOUSING AND HEAT SHROUD (Gas Models)

a. While supporting access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 50*.
d. Remove screw from right side of burner housing, while holding burner tube in place. Refer to *Figure 52*.
e. Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 50*.
f. Carefully rotate burner tube and igniter **counterclockwise** so tab is at 8 o'clock position.
g. Move air shutter end of burner tube slightly to the right and CAREFULLY remove burner tube and igniter assembly out through front of dryer.

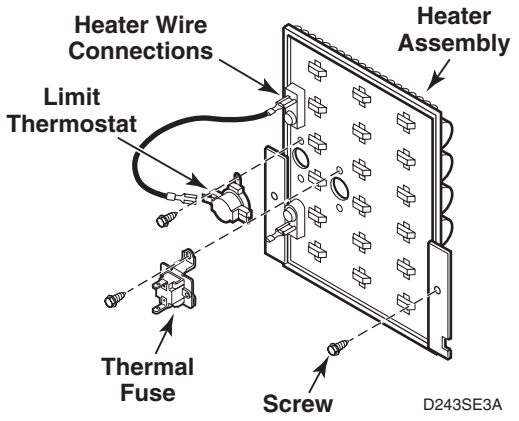
IMPORTANT: The igniter is very fragile. Be careful not to damage it during removal.

h. Remove screw holding burner housing to heat shroud. Refer to *Figure 50*.
i. Remove screw holding front of burner housing to dryer base and remove housing out through front of dryer. Refer to *Figure 52*.
j. Remove two screws holding heat shroud to heater box and remove heat shroud out through front of dryer.

119. LIMIT THERMOSTAT

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Disconnect wires and remove screws holding limit thermostat to burner housing (gas models) or element plate (electric models). Refer to *Figure 52*.

ELECTRIC MODELS



GAS MODELS

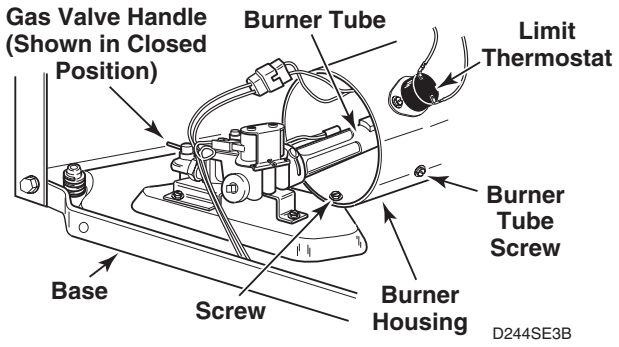


Figure 52

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

120. HEATER ASSEMBLY (Electric Models)

a. While supporting access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding heater assembly to heater box and remove heater assembly out through front of dryer. Refer to *Figure 52*.
d. Disconnect wires from heater assembly. Refer to *Figure 52*.

NOTE: When reassembling, be sure all wire connectors are tight on element terminals, thermal fuse and limit thermostat.

121. THERMISTOR

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Disconnect wires and remove thermistor attaching screws. Refer to *Figure 53*.

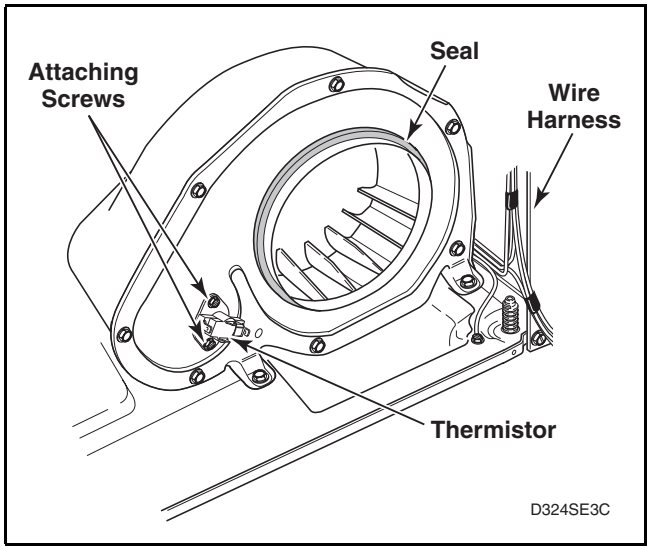

Figure 53

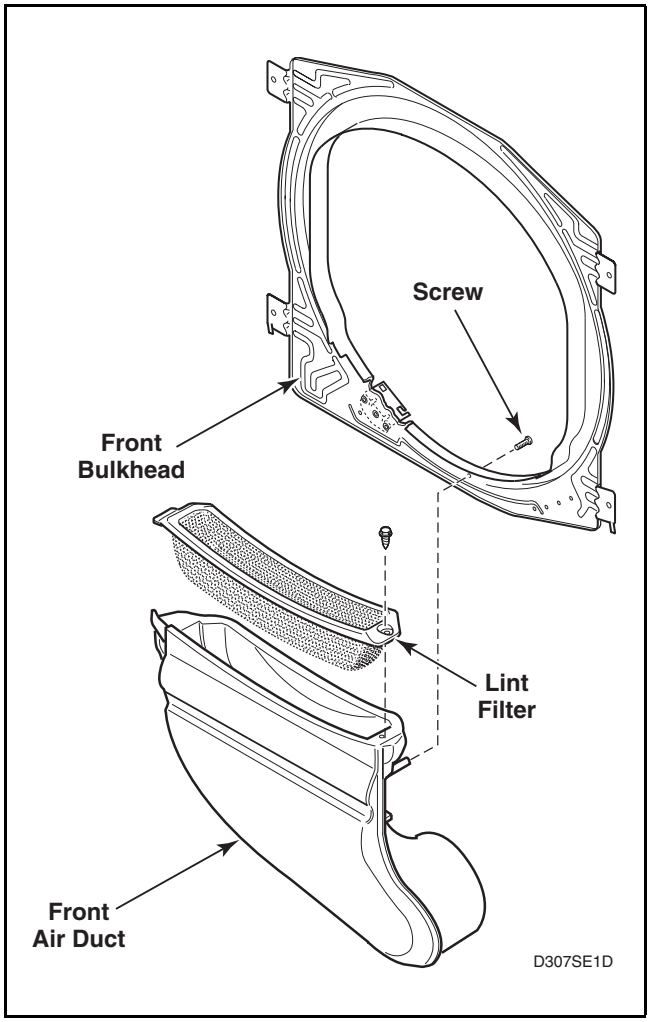

Figure 54

122. AIR DUCT

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

IMPORTANT: When installing lint filter, be sure to install the filter with the words facing the front of the dryer. If filter is installed backwards, lint will accumulate in exhaust system, which can adversely affect dryer performance.

c. Remove three screws holding the air duct to the front bulkhead inside cylinder. Refer to *Figure 54*.

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

d. Carefully lift air duct out of dryer.

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

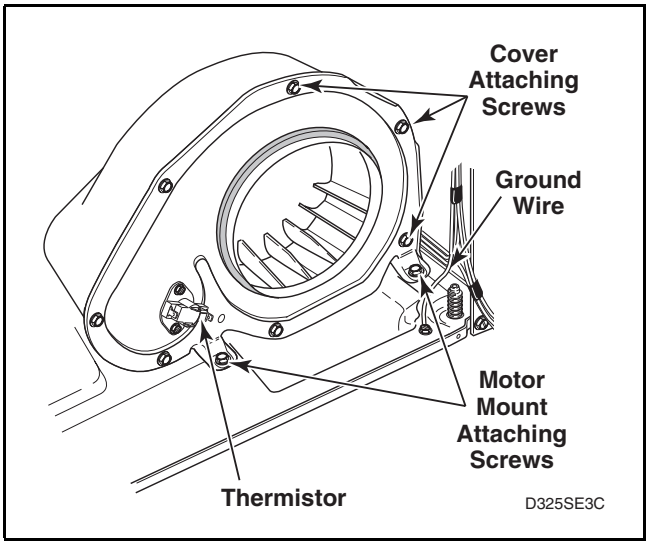

Figure 55

123. DRYER MOTOR AND EXHAUST ASSEMBLY

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Open loading door, remove screw, and lift filter out of bulkhead.
d. Remove screws holding air duct to front bulkhead (inside cylinder). Refer to *Figure 54*.

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 55*. If the seal is installed improperly, the airflow through the exhaust system will be restricted, which can adversely affect dryer performance.

e. Disconnect wires from thermistor.

NOTE: Refer to wiring diagram when rewiring thermistor.

f. Remove screw holding ground wire to dryer base. Refer to *Figure 55*.
g. Remove cylinder belt from idler and motor pulleys. Refer to *Figure 56*.
h. Disengage motor wire harness terminal block from motor switch by pressing in on the movable locking tabs (located on each end of the terminal block) and pulling away from motor. Refer to *Figures 59* and *60*.
i. Remove two screws holding motor mounting bracket to dryer base. Refer to *Figure 55*.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

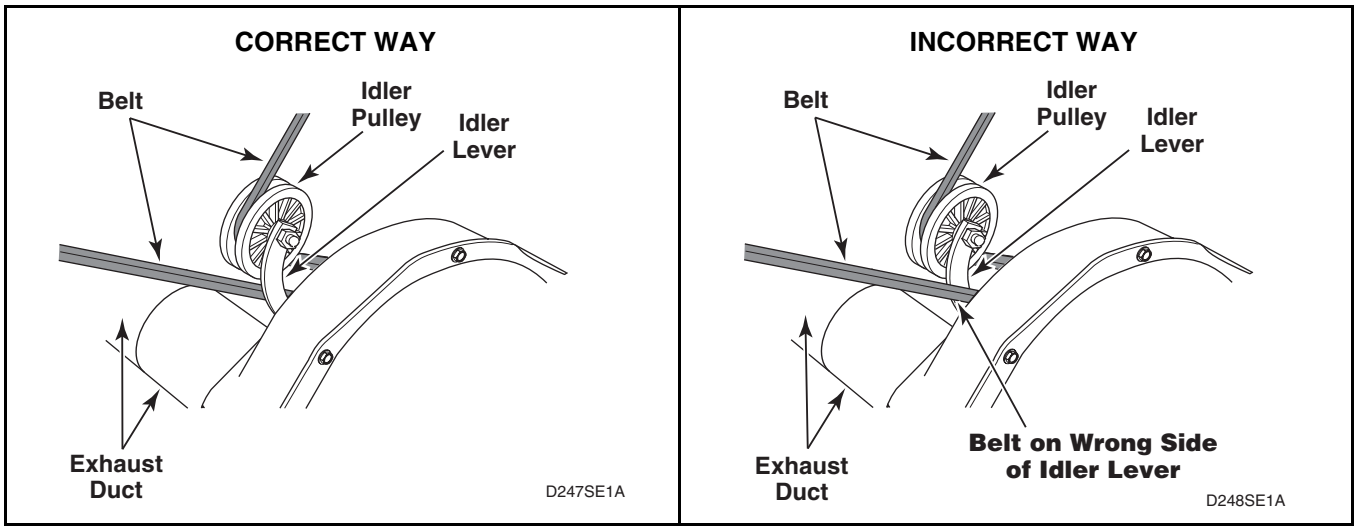

Figure 56

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

IMPORTANT: When reinstalling motor and exhaust assembly, be sure wire harness on right side is clipped to motor mounting bracket and is routed along dryer base (between motor mounting bracket and right side of cabinet). Refer to *Figure 54*. Tab on rear of motor mounting bracket must be slid into slot in dryer base. Be sure the belt has been installed on the correct side of the idler lever. Refer to *Figure 56*.

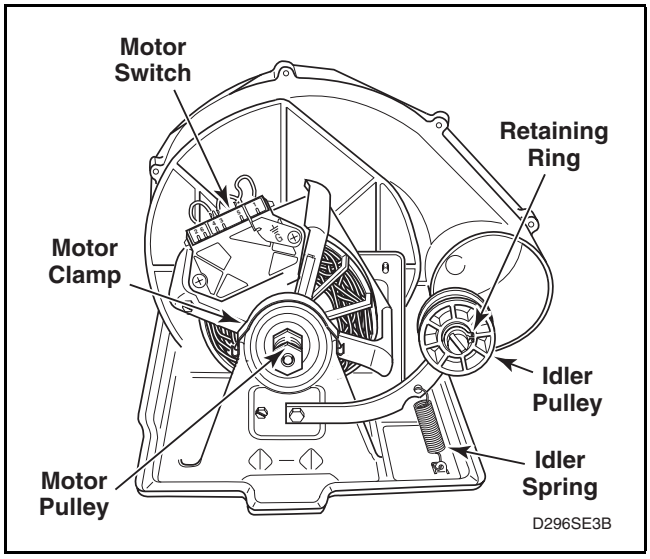

Figure 57

j. Pull assembly forward and disengage the middle exhaust duct.
k. Rotate the assembly 90° **counterclockwise** and slide out through front of dryer.
l. **Motor pulley and idler pulley assemblies.** Refer to *Figure 57* for motor and idler pulley removal.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

NOTE: When repairing or replacing the idler arm, it is important to make sure the idler arm moves freely. To ensure that the idler arm can move freely, proceed as follows:

(1) Unhook idler spring.
(2) Lift idler arm approximately 3 inches and release. If idler arm does not fall back to the base of the motor mount, then idler arm bolt is too tight.
(3) Loosen idler arm bolt 1/4 turn.
(4) Add grease between idler arm and motor mount.

m. **Impeller and housing.**
(1) Remove screws holding cover to housing. Refer to *Figure 55*.
(2) Hold motor pulley securely and unthread impeller from motor shaft (right hand thread). Use a 7/8 inch, 6 point socket to aid in the removal of the impeller.
(3) Remove three screws holding the exhaust housing to the motor mounting bracket. Refer to *Figure 58*.

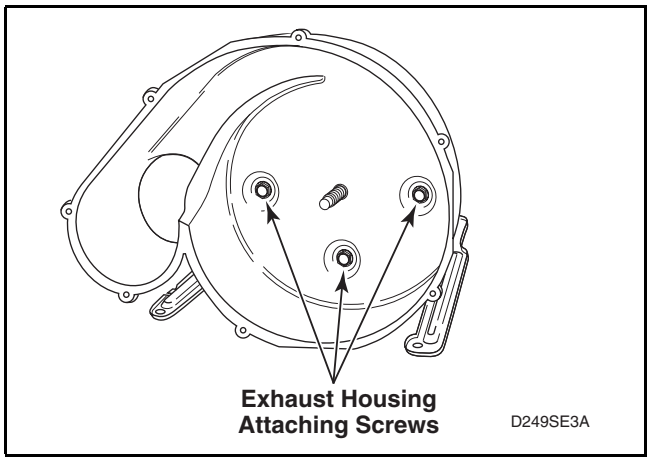

Figure 58

n. **Motor.**
(1) Disengage motor wire harness terminal block from the motor by pressing in on the movable locking tabs (located on each side of the terminal block) and pulling away from motor. Refer to *Figure 59*.

IMPORTANT: To avoid an open circuit, DO NOT pull on the terminal block wires when removing blocks from motor as this could damage the wires or terminal crimping.

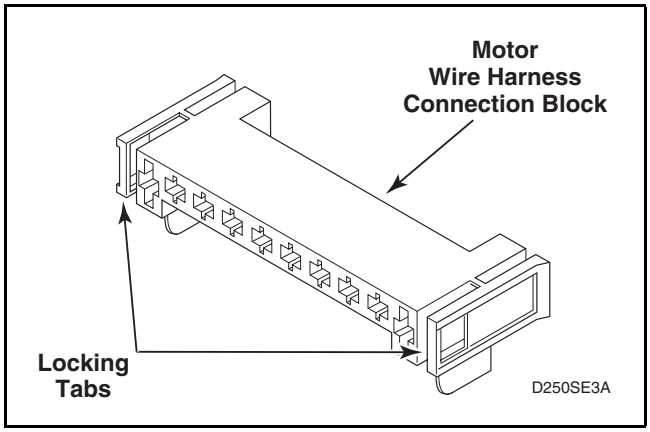

Figure 59

Before attaching wire harness terminal block to motor, be sure all the male terminals on motor are straight and are capable of accepting the terminals from the wire harness terminal block.

(2) Pry two motor clamps off motor mounting bracket with screwdriver, then lift motor out of mounting bracket. Refer to *Figure 57*.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

NOTE: When replacing motor, motor switch should be at 10 o'clock position. The positioning tab on the motor should be engaged with the anti-rotating notch in the motor bracket.

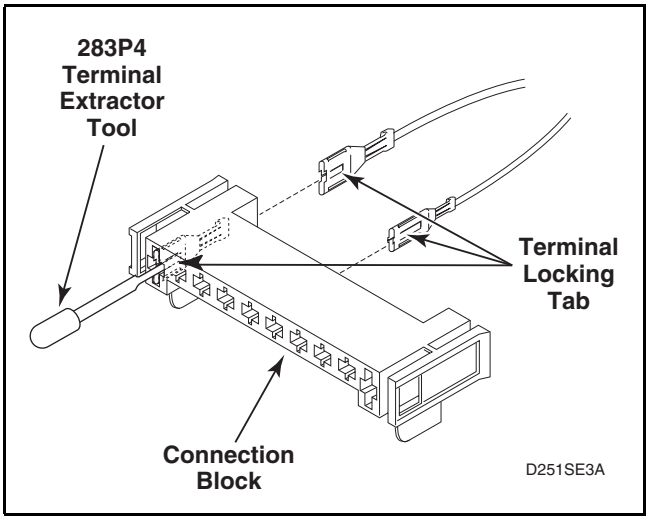

Figure 60

o. **Motor Connection Block Terminals**
Remove terminals from the motor wire harness connection block using No. 283P4 Terminal Extractor Tool as follows:
(1) Insert the tool into the block on the back of the terminal being removed. Refer to *Figure 60*.
(2) Apply tool pressure to compress the terminal locking tab on terminal and force the terminal and wire out back side of connection block. Refer to *Figure 60*.

To install terminal in connection block, insert terminal (with wire securely crimped in place) into back side of connection block. Push terminal into connection block until locking tab on terminal spreads and holds terminal in place.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

124. DRYER FRONT BULKHEAD ASSEMBLY

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.
d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

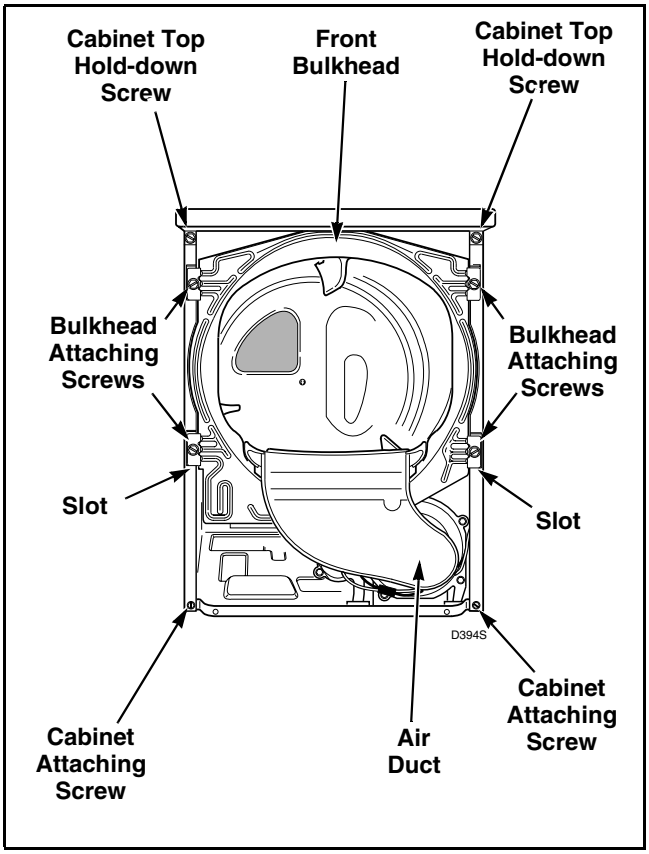

Figure 61

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

e. Disengage belt from motor and idler pulley. Refer to *Figure 56*.
f. Remove four screws holding bulkhead to front flange of cabinet and lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 61*.
g. Remove air duct assembly.

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

h. **Cylinder Glides and Glide Bracket.** Refer to *Figure 62*.
   (1) Unsnap glide from each glide bracket.
   (2) Drill out rivets holding glide bracket to front bulkhead.

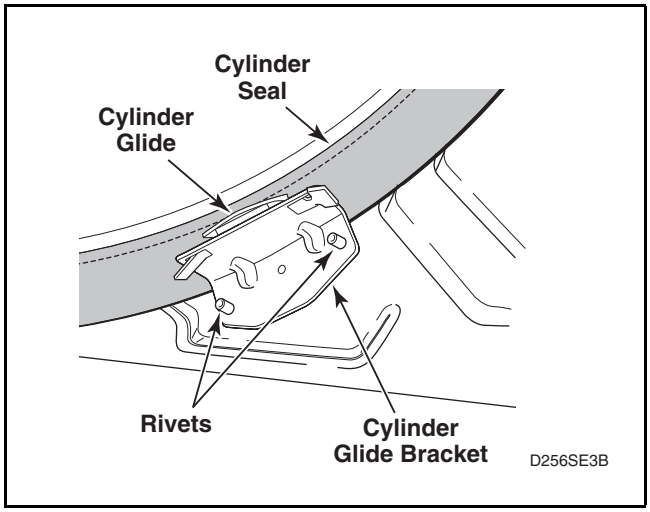

Figure 62

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

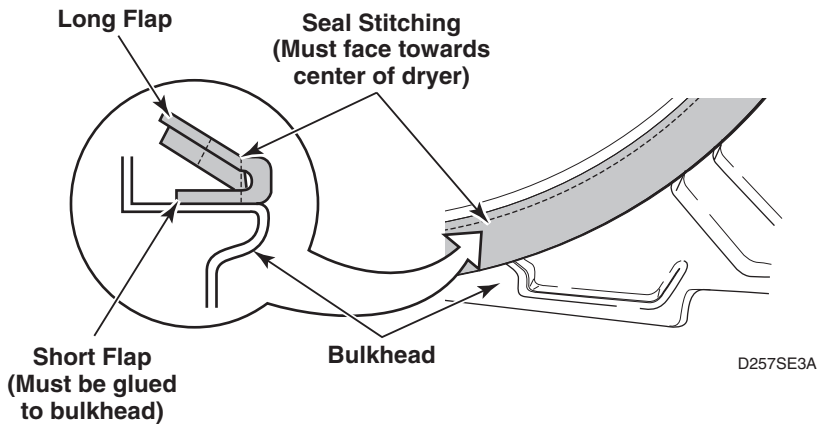

Figure 63

i. **Front Cylinder Seal** (Refer to *Figure 63*.)
When installing the cylinder seal, it is important to remember these two steps:
(1) The stitching on the seal must face towards center of dryer.
(2) The short flap must be glued to the bulkhead and the long flap left loose.

IMPORTANT: The replacement seal can be adhered to the bulkhead using No. 22506P Sealant. This is accomplished by applying a bead of sealant around the entire flanged area where the felt seal contacts the bulkhead.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

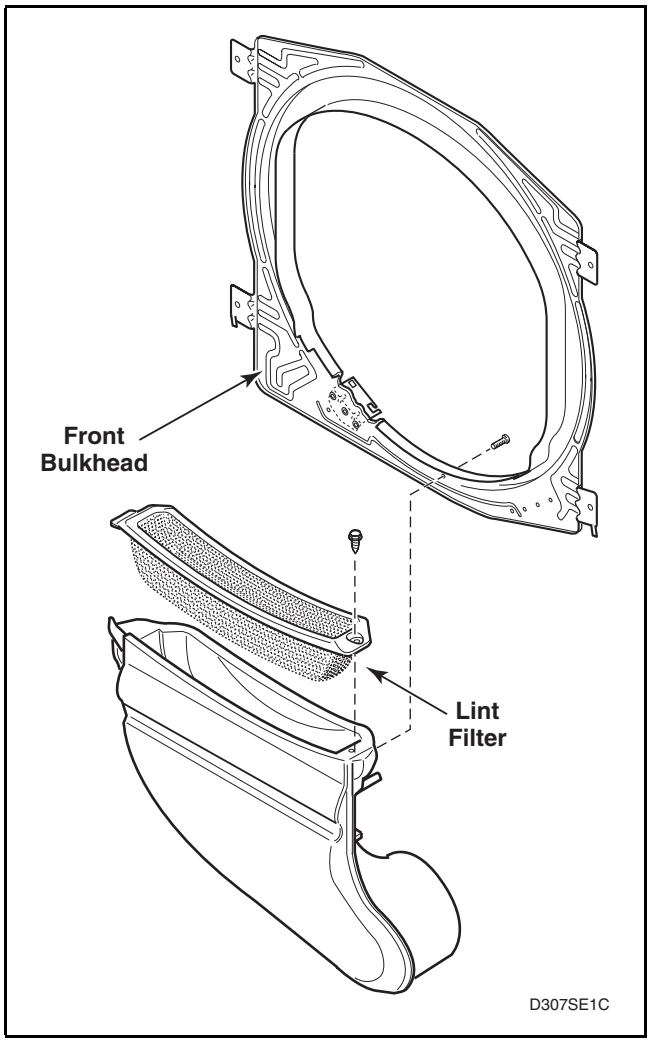

Figure 64

125. CYLINDER BELT

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.
d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Disengage belt from motor and idler pulleys. Refer to *Figure 56*.
f. Remove four screws holding bulkhead to front flange of cabinet. Then, lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 61*.

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

g. While supporting cylinder, carefully remove belt from cylinder.

NOTE: When reinstalling belt, be sure belt is properly installed on motor and idler pulleys, and is on the correct side of the idler lever. Refer to *Figure 56*. Belt must be positioned around center section of cylinder approximately three inches ahead of rear rib on cylinder. Refer to *Figure 65*. After installing belt, manually rotate cylinder counterclockwise to check that belt is properly aligned.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

126. DRYER CYLINDER ASSEMBLY

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.

b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.

c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.

d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Disengage belt from motor and idler pulleys. Refer to *Figure 56*.

NOTE: When reinstalling belt, be sure belt is properly installed on motor and idler pulleys, and is on the correct side of the idler lever. Refer to *Figure 56*. Belt must be positioned around center section of cylinder approximately three inches ahead of rear rib on cylinder, with the ribbed surface of the belt against the cylinder. Refer to *Figure 65*. After installing belt, manually rotate cylinder counterclockwise to check that belt is properly aligned.

f. Remove four screws holding bulkhead to front flange of cabinet. Then lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 61*.

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

g. Remove two cabinet top hold-down screws. Refer to *Figure 61*.

h. Carefully remove cylinder out through front of dryer.

i. Baffles – Remove screws holding baffles to cylinder. Refer to *Figure 65*.

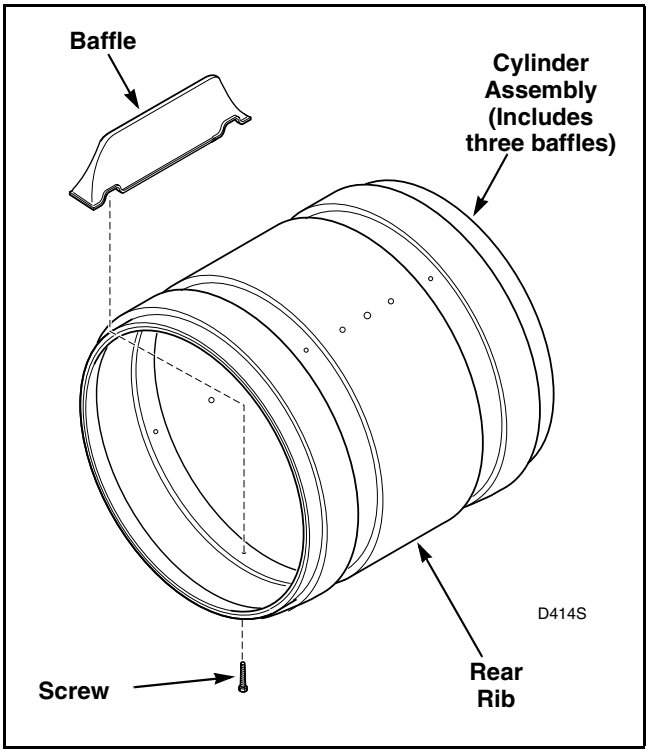

Figure 65

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

127. DRYER REAR SEAL

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.
d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Remove two cabinet top hold-down screws. Refer to *Figure 61*.
f. Lift cabinet top to a vertical position by hinging it on the rear hold-down brackets.

NOTE: Cabinet top may be raised and hinged on the rear hold-down brackets, or supported against wall behind the dryer.

g. Disengage belt from motor and idler pulleys. Refer to *Figure 56*.

NOTE: When reinstalling belt, be sure belt is properly installed on motor and idler pulleys and is on the correct side of the idler pulleys. Refer to *Figure 56*. Belt must be positioned around center section of cylinder approximately three inches ahead of rear rib on cylinder with the ribbed surface of the belt against cylinder. Refer to *Figure 65*. After installing belt, manually rotate cylinder counterclockwise to check that belt is properly aligned.

h. Remove four screws holding bulkhead to front flange of cabinet. Then, lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 61*.

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

i. Manually rotate cylinder until one of the baffles is at the 6 o'clock position and carefully remove cylinder out through front of dryer.
j. Pull rear cylinder seal from flanged edge of bulkhead. Refer to *Figure 66*.

NOTE: When installing the cylinder seal, it is important to remember these two important steps:

(1) The stitching on the seal must face towards the dryer center. Refer to *Figure 63*.

(2) The short flap, shown in *Figure 63*, must be glued to the bulkhead and the long flap left loose.

IMPORTANT: The seal can be adhered to the bulkhead using replacement sealant No. 22506P. This is accomplished by applying a bead of sealant around the entire flanged area where the felt seal contacts the bulkhead.

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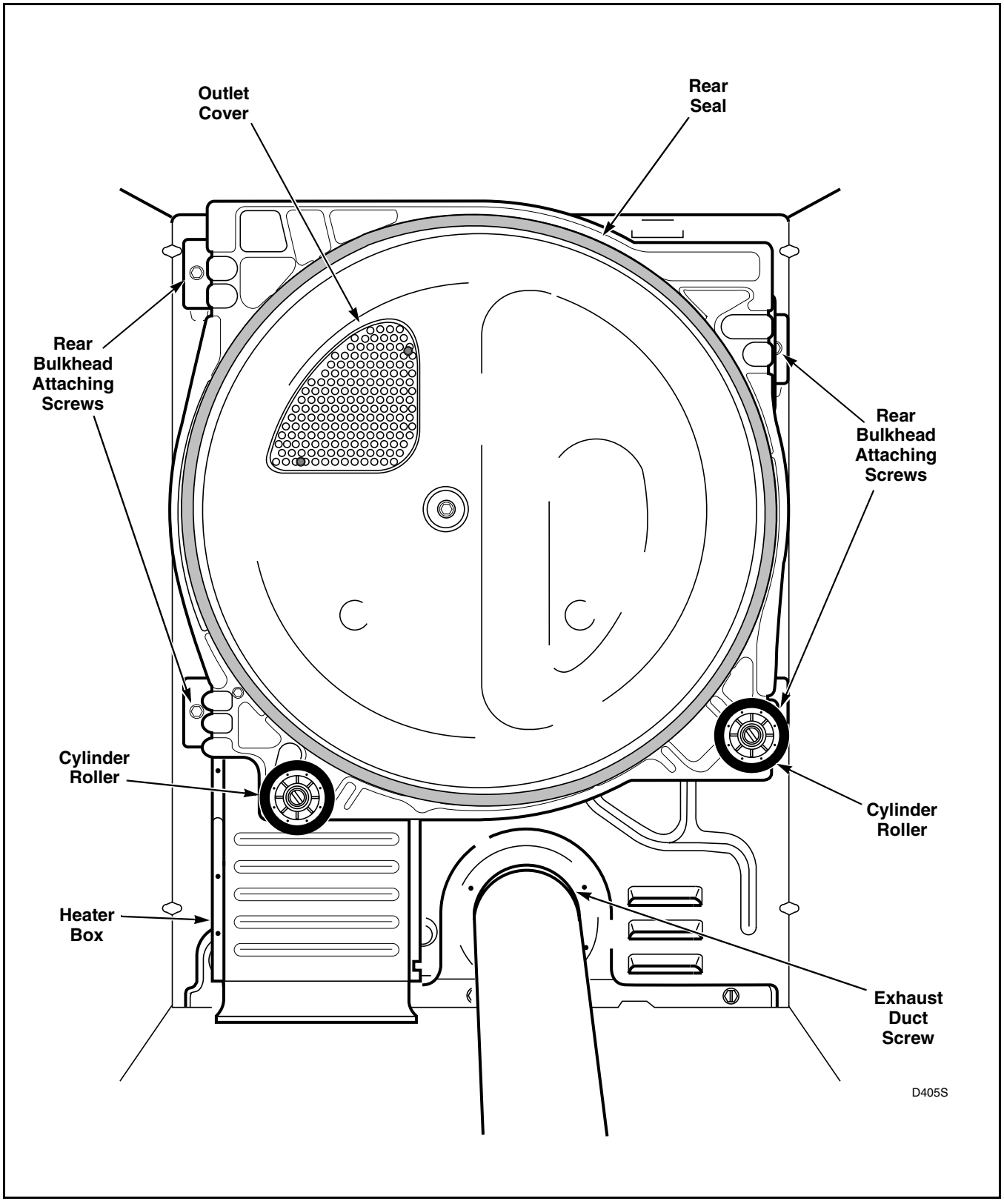

Figure 66

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

128. CYLINDER ROLLERS

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage panel locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.
d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Disengage belt from motor and idler pulleys. Refer to *Figure 56*.
f. Remove four screws holding bulkhead to front flange of cabinet. Then lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 61*.

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

g. Pull cylinder forward allowing rear of cylinder to drop down exposing rollers. Refer to *Figure 67*.
h. Refer to *Figure 67* for removal of roller from bulkhead.

NOTE: When replacing the cylinder roller, it is important that cylinder roller is installed with the flanged surface of the roller bearing facing towards the front of the dryer.

129. OUTLET COVER

a. Open door and remove two screws holding outlet cover to rear bulkhead. Refer to *Figure 66*.

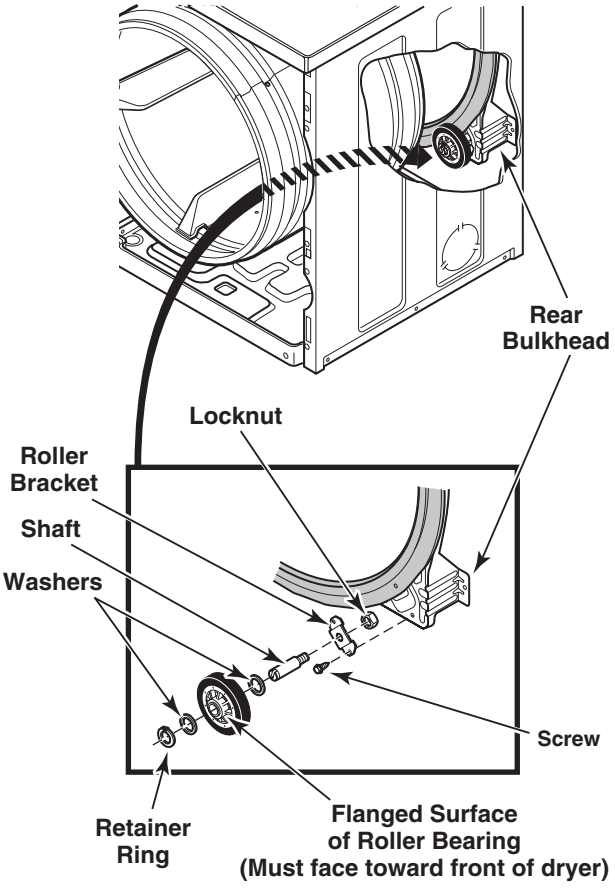

Figure 67

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

130. REAR BULKHEAD AND HEATER BOX

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.

b. Gently lower the access panel to disengage panel locators from bottom edge of front panel. Refer to *Figure 48*.

c. Remove two screws from bottom tabs on front panel. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.

d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

e. Disengage belt from motor and idler pulleys. Refer to *Figure 56*.

NOTE: When reinstalling belt, be sure belt is properly installed on motor and idler pulleys and is on the correct side of the idler pulleys. Refer to *Figure 56*. Belt must be positioned around cylinder approximately three inches ahead of rear rib on cylinder with the ribbed surface of the belt against the cylinder. Refer to *Figure 65*. After installing belt, manually rotate cylinder counterclockwise to check that belt is properly aligned.

f. Remove four screws holding bulkhead to front flange of cabinet. Then lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 61*.

WARNING

To reduce the risk of serious injury or death by carbon monoxide and other gases in gas dryers, carefully read and follow all instructions given in this section.

W005

IMPORTANT: When reassembling, be sure seal on exhaust fan cover makes airtight seal on flange of duct. Refer to *Figure 53*. If the seal is installed improperly, the airflow through the exhaust system will be restricted which can adversely affect dryer performance.

g. Remove two cabinet top hold-down screws. Refer to *Figure 61*.

h. Carefully remove cylinder out through front of dryer.

i. **Gas Models:**

(1) Disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 50*.

(2) Remove burner tube attaching screw from right side of burner housing, while holding burner tube in place. Refer to *Figure 52*.

(3) Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 51*.

(4) Carefully rotate burner tube and igniter **counterclockwise** so tab is at the 8 o'clock position.

(5) Move air shutter end of burner tube slightly to right and CAREFULLY remove burner tube and igniter assembly out through front of dryer. Refer to *Figure 51*.

IMPORTANT: The igniter is very fragile. Be careful not to damage it during removal.

(6) Remove screw holding burner housing to heat shroud. Refer to *Figure 50*.

(7) Remove screw holding front of burner housing to dryer base and remove housing out through front of dryer. Refer to *Figure 52*.

(8) Remove two screws holding shroud to heater box, and remove shroud out through front of dryer. Refer to *Figure 50*.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

j. **Electric Models:**
   (1) Remove two screws holding element and plate to heater box, then pull element down and away from heater box. Refer to *Figure 52*.
   (2) Remove all wires from terminal block. (Refer to appropriate wiring diagram when rewiring terminal block.)
   (3) Remove screw holding terminal block to rear bulkhead. Refer to *Figure 69*.

k. While supporting bulkhead, remove the four screws holding rear bulkhead to dryer cabinet, then lift complete assembly out of dryer. Refer to *Figure 66*.

l. Remove heater box from rear bulkhead. Refer to *Figure 68*.

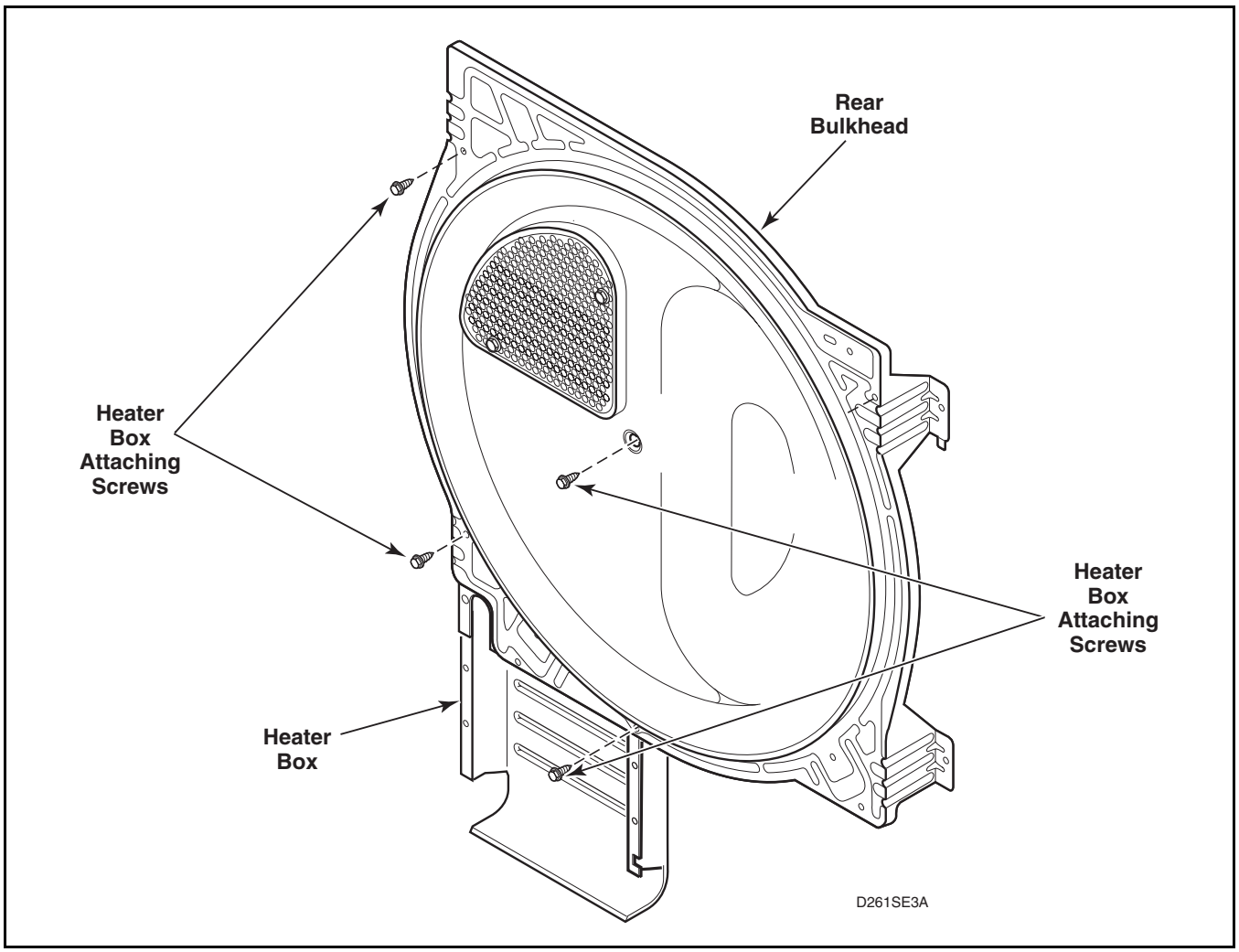

Figure 68

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

131. TERMINAL BLOCK OR POWER CORD

a. **Terminal Block:**

(1) While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.

(2) Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.

(3) Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.

(4) Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to wiring diagram when rewiring switch.

(5) Remove two cabinet top hold-down screws. Refer to *Figure 42*.

(6) Lift cabinet top to a vertical position by hinging it on the rear hold-down brackets. Refer to *Figure 43*.

NOTE: When servicing, cabinet top may be raised and hinged on the rear hold-down brackets, or supported against wall behind the dryer.

(7) Remove all wires from terminal block.

NOTE: Refer to wiring diagram when rewiring terminal block.

(8) Remove screw holding terminal block to rear bulkhead. Refer to *Figure 69*.

NOTE: Do not let terminal block insulation drop when removing the block. Insulation must be in place when reinstalling block.

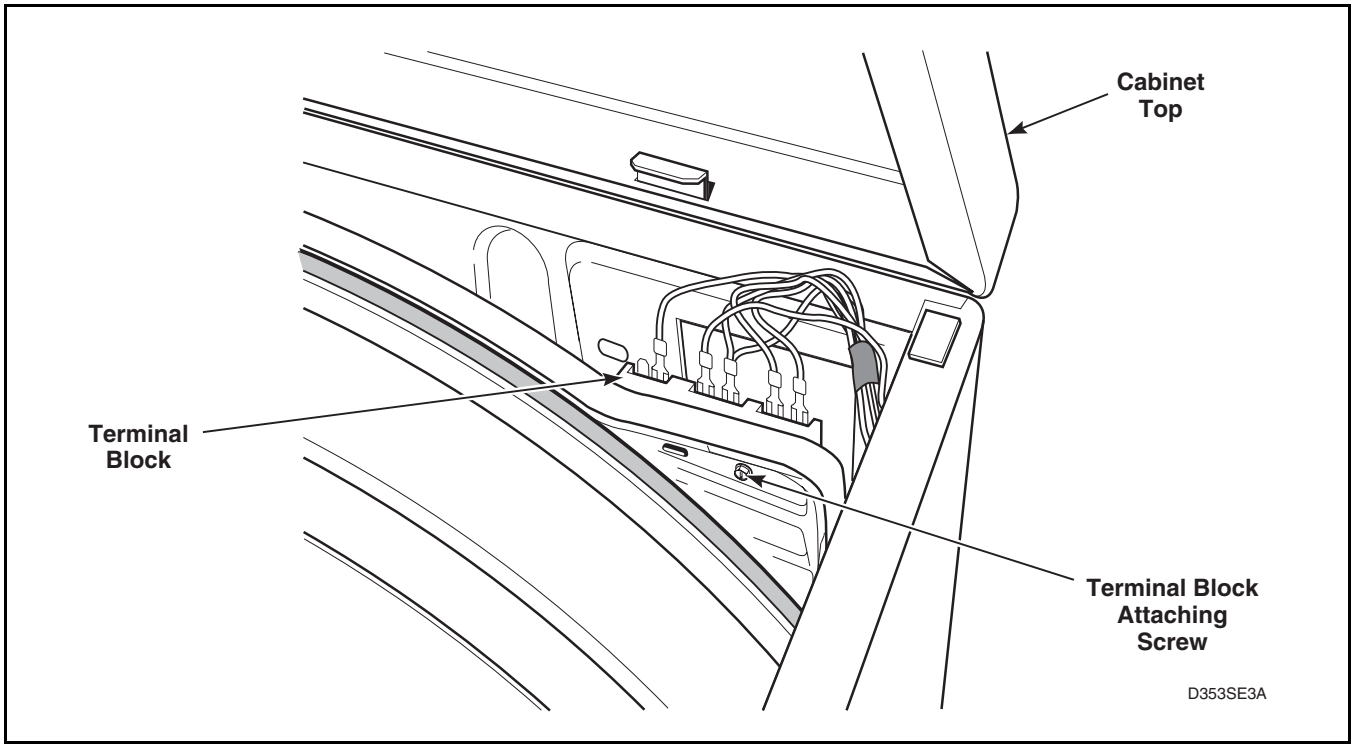

Figure 69

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

b. **Power Cord:**
(1) Remove access plate on rear of cabinet.
(2) Remove strain relief.
(3) Remove screw holding power cord ground wire to rear bulkhead. Refer to *Figure 70*.

NOTE: Reinstall screw and ground wires into same hole in bulkhead when reinstalling power cord.

(4) Disconnect molex plug and remove power cord from rear of dryer cabinet.

NOTE: A qualified electrician should check the polarity of the wall receptacle. If a voltage reading is measured other than that illustrated, the qualified electrician should correct the problem.

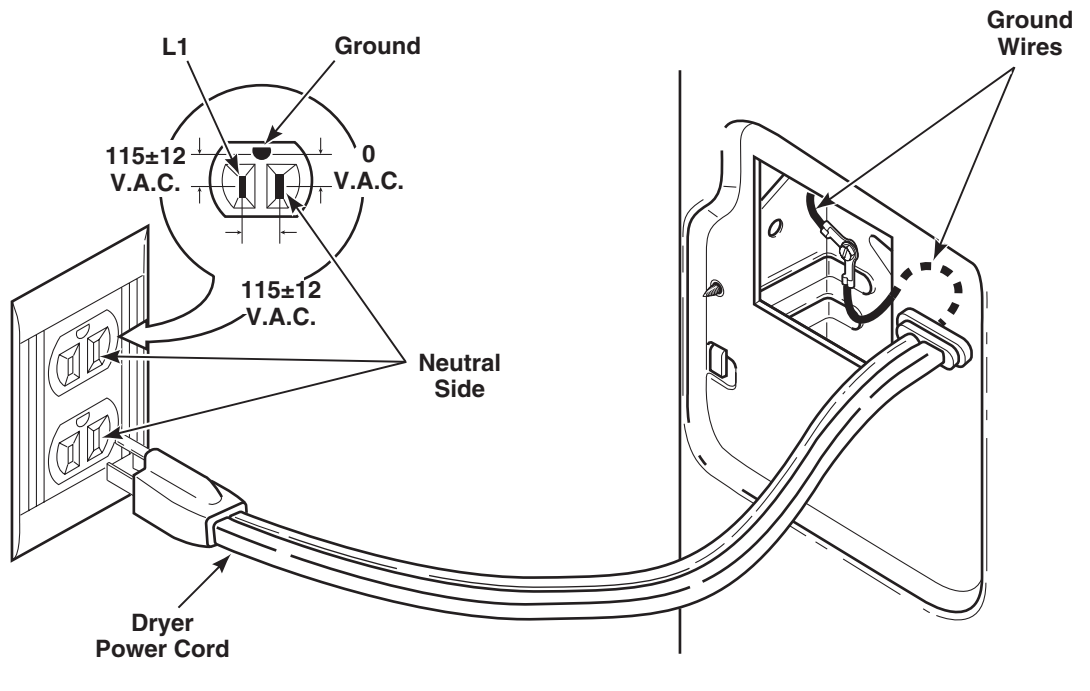

Figure 70

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Section 6
Adjustments

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

IMPORTANT: When reference is made to directions (right or left) in this manual, it is from operator's position facing front of washer.

132. CABINET LEVELING LEGS

a. Place washer in position on a clean, firm and reasonably level floor. Installing the washer on any type of carpeting is not recommended.

b. Loosen locknuts and adjust the leveling legs until the washer does not rock. Refer to *Figure 71*.

c. Tighten the locknuts securely against the washer base. If the locknuts are not tight, washer will move out of position during operation.

CAUTION

DO NOT slide washer across floor if the leveling legs have been extended, as legs and base could become damaged.

W248

CAUTION

Use of the dispenser drawer or washer door as a handle in the transportation of the washer may cause damage to the dispenser or door.

W185

d. Remove rubber feet from accessories bag and place on all four leveling legs. Refer to *Figure 71*.

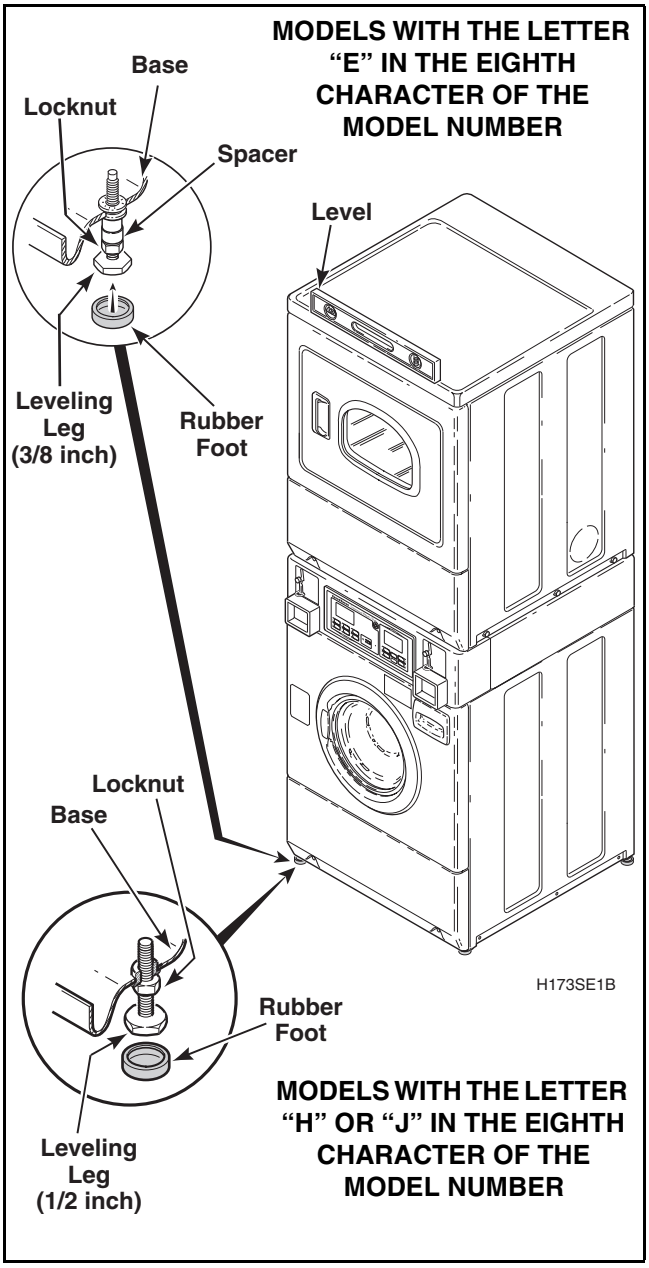

Figure 71

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

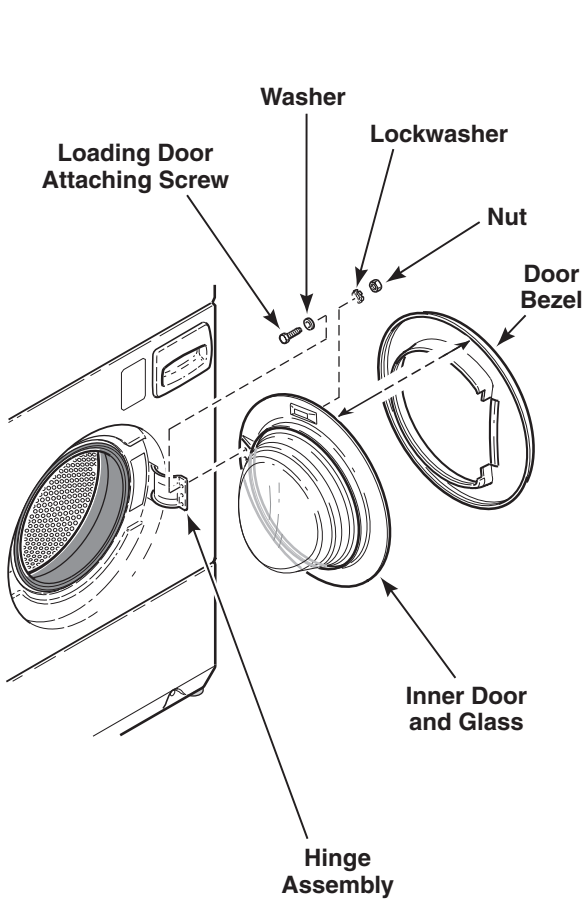
W014R1

133. WASHER LOADING DOOR

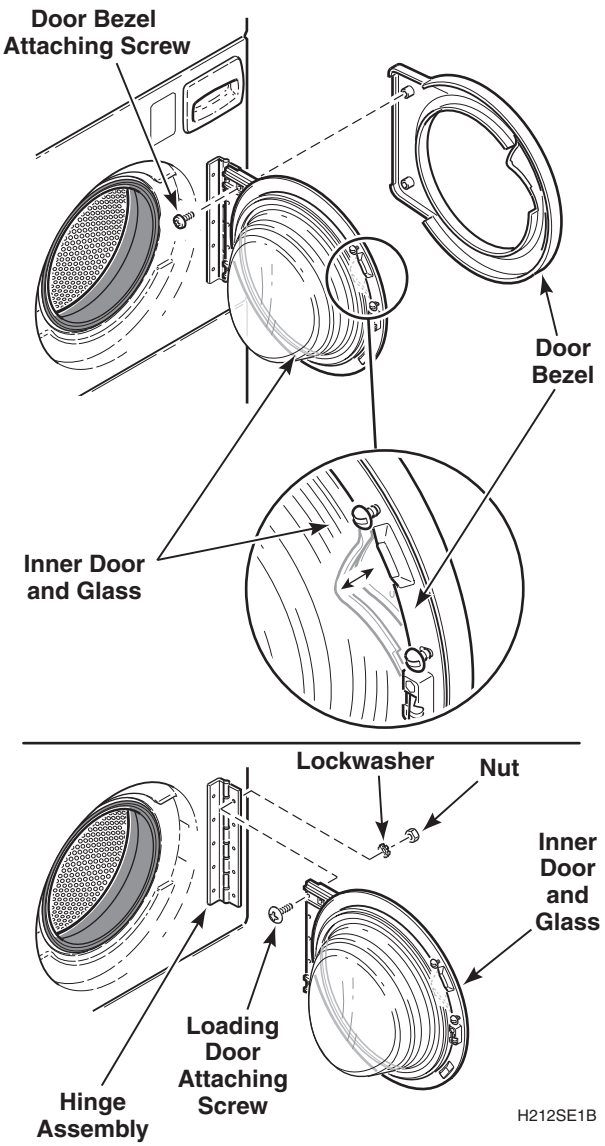
a. Open loading door.

b. Remove door bezel to gain access to nuts. Refer to *Figure 72*.

c. The loading door can be adjusted up or down somewhat by loosening screws holding door to hinge, then raise or lower door before retightening screws. Refer to *Figure 72*.



MODELS WITH THE LETTER "E" IN THE EIGHTH CHARACTER OF THE MODEL NUMBER



MODELS WITH THE LETTER "H" OR "J" IN THE EIGHTH CHARACTER OF THE MODEL NUMBER

Figure 72

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

134. WASHER MOTOR BELT TENSION

NOTE: Belt adjustment procedures are done through front of washer, however, as an option, washer can be moved from its location and belt adjustment can be done through lower access panel opening on rear panel.

a. While supporting lower front access panel, remove two screws from bottom edge of access panel and remove panel. Refer to *Figure 23*.
b. Working through the access door opening, place a locking pliers on the metal rod and loosen the two adjusting bolts. Refer to *Figure 73*. Repeat procedure to loosen the two pivot bolts. Refer to *Figure 73*.
c. Pull down on motor to increase belt tension. Use a Burroughs belt gauge to obtain proper tension. Proper belt tension is obtained when belt can be deflected approximately 1/4 inch (6.35 mm) from normal position when moderate pressure 50 to 60 pounds (22.68 to 27.22 Kg) is applied to a point midway between pulleys. Refer to *Figure 73*.
d. After proper belt tension has been obtained, tighten belt adjusting bolts firmly, then tighten pivot bolts. Refer to *Figure 73*.

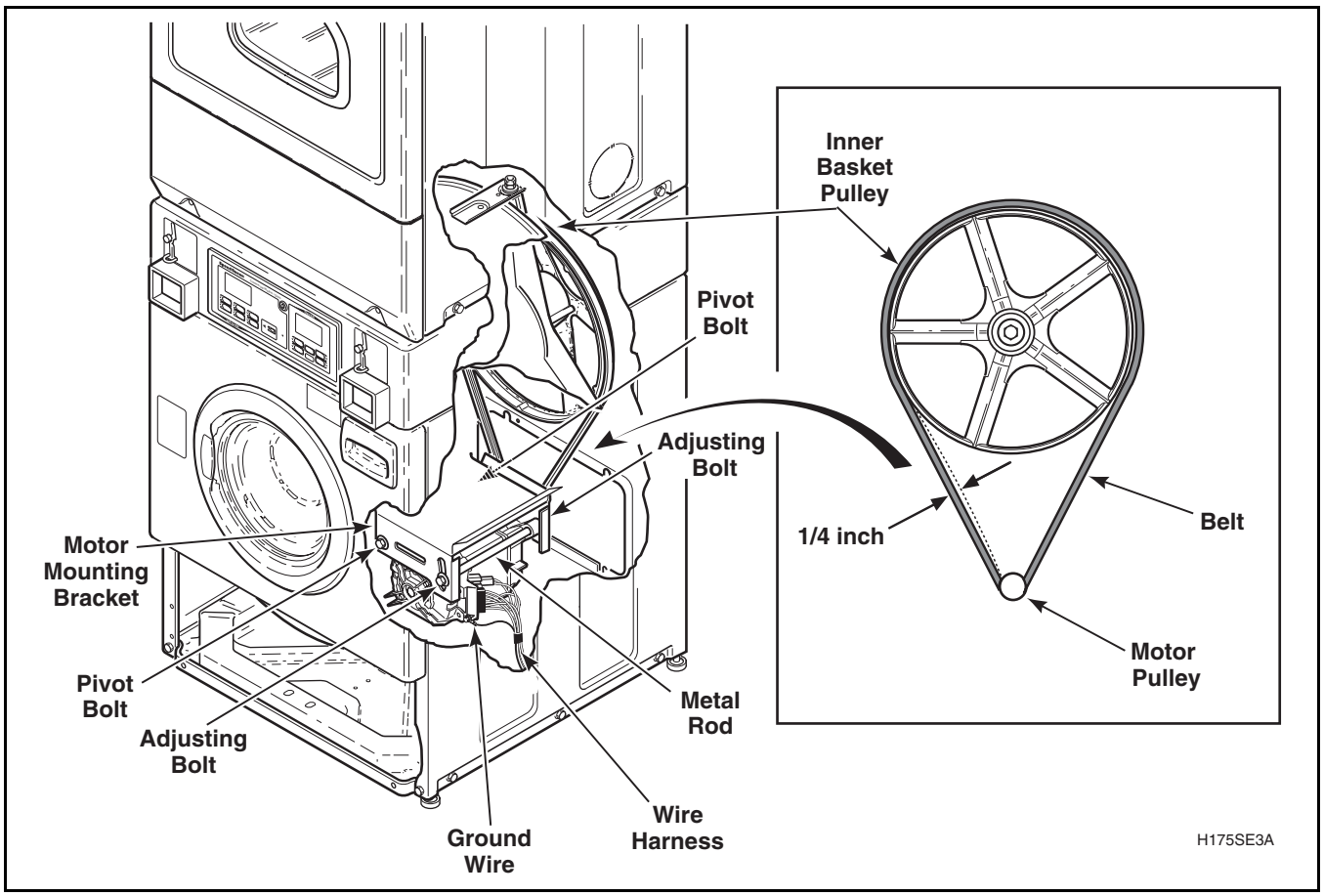

Figure 73

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

135. WASHER DOOR CATCH

NOTE: When repairing a broken or inoperative No. 685430 Door Catch, proceed as follows:

a. Remove door bezel.
b. Remove two screws and nuts holding door catch to door and remove door catch.
c. Install new door catch and tighten screws and nuts to the point of being snug.
d. Adjust door catch so the outside edge is aligned with the edge of the latch. Refer to *Figure 74*.
e. Visually check that the door catch properly engages the funnel of the door latch/switch assembly. Refer to *Figure 74*.
f. Recheck the alignment in step “d”. Adjust if needed.
g. Torque the two nuts to approximately 30 inch pounds (3.4 Nm).
h. Reinstall door bezel.

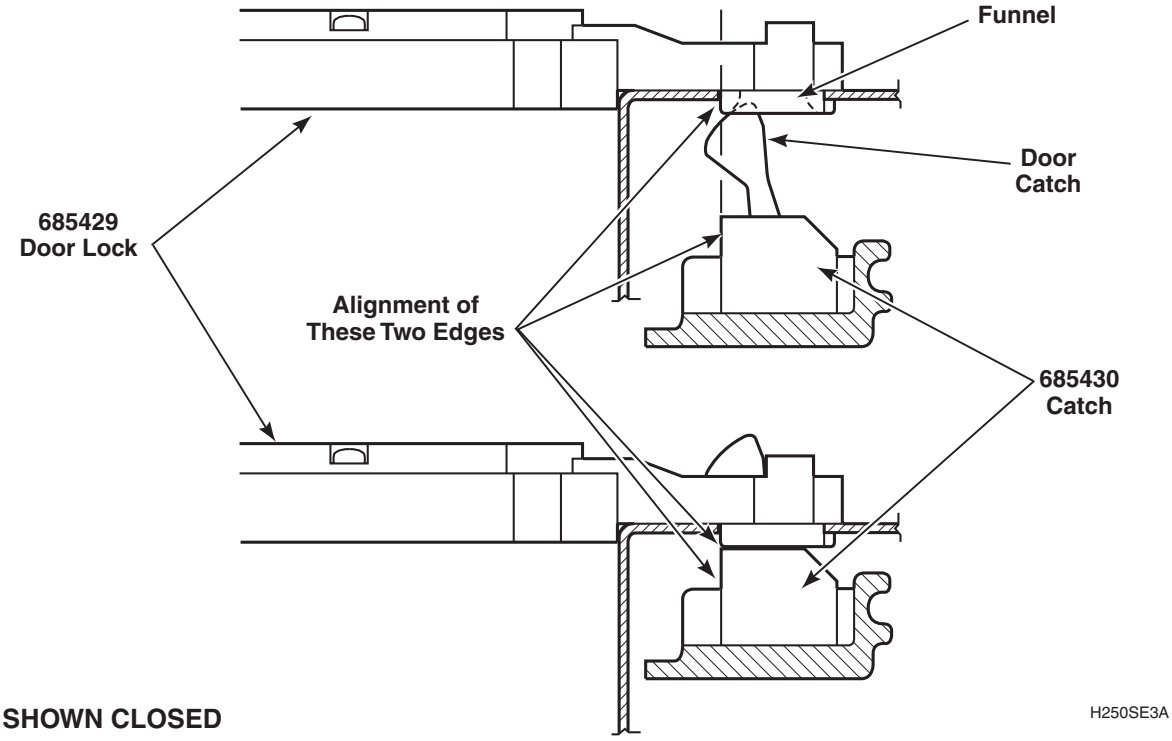

Figure 74

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

136. BURNER FLAME (Gas Models)

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Set timer at "60" minutes (nonmetered) or add coins (metered).
d. Close the loading door. Start the dryer in a heat setting (refer to Operating Instructions supplied with the dryer). The dryer will start, the igniter will glow red, and the main burner will ignite.
e. Allow the dryer to operate for approximately five minutes, then loosen the air shutter lockscrew. Refer to *Figure 75*.
f. Turn the air shutter to the left to get a luminous yellow tipped flame, then turn it back slowly to the right to obtain a steady blue flame.
g. After proper flame is obtained, tighten air shutter lockscrew firmly. Refer to *Figure 75*.
h. Reinstall access panel and screws.

WARNING

To reduce the risk of fire or serious injury, the access panel must be in place during normal operation.

W262

After the dryer has operated for approximately three minutes, exhaust air or exhaust pipe should be warm.

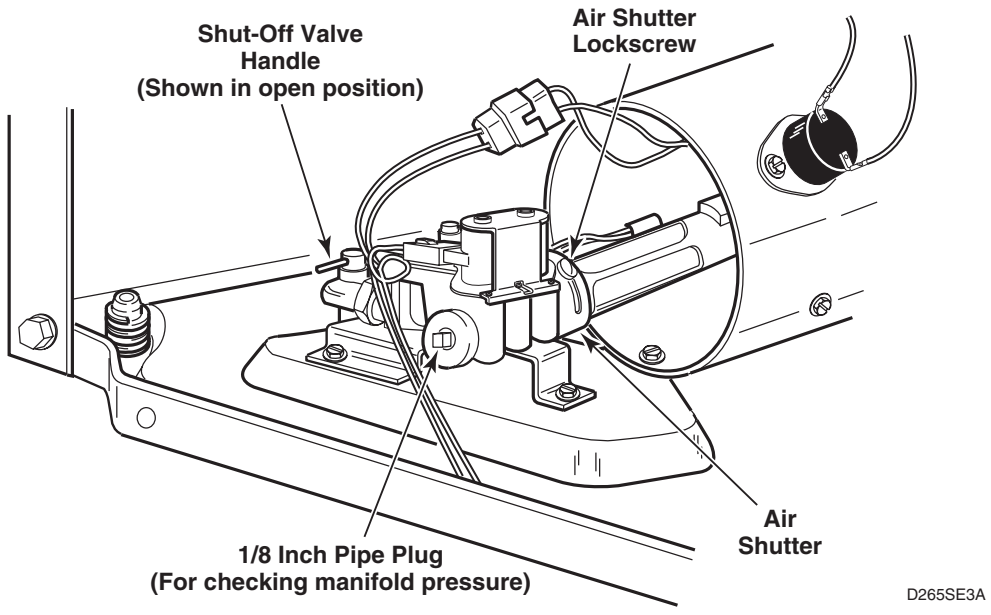
Shut-Off Valve Handle (Shown in open position)
Air Shutter Lockscrew
Air Shutter
1/8 Inch Pipe Plug (For checking manifold pressure)
D265SE3A

Figure 75

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

137. CLEANING COIN DROP

a. Disconnect electrical power to machine and drop.

b. Remove coin drop from machine. Refer to *Paragraph 87*.

c. If lint is preventing coins from rolling through coin drop, blow compressed air though coin entry and along the side of the coin drop. Refer to *Figure 76*.

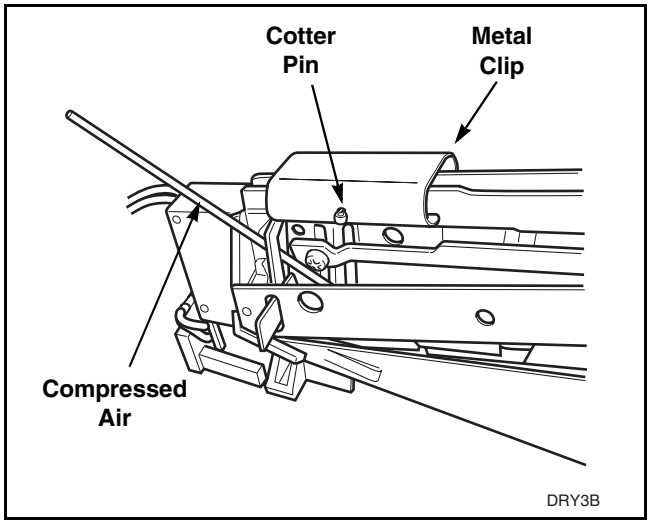

Figure 76

d. Insert a coin through the coin drop. If coin does not roll through drop, continue with the following.

e. Remove cotter pin from top of drop. Refer to *Figure 76*. Save pin for reinstallation when cleaning is complete.

f. Move metal clip closer to sensor so that it comes off frame. Refer to *Figure 76*.

g. Remove coin return from coin drop frame. Refer to *Figure 77*.

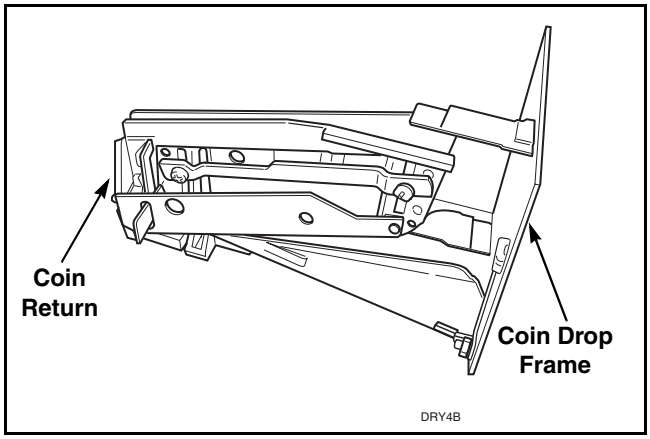

Figure 77

h. Check coin path in coin drop for lint and residue. If lint or light residues are present, use a cotton swab to remove. If heavy residue is present, it may be necessary to first scrape off excessive residue and then use a cotton swab dipped in water or isopropyl alcohol (rubbing alcohol) to remove remainder of residue. Refer to *Figure 78*.

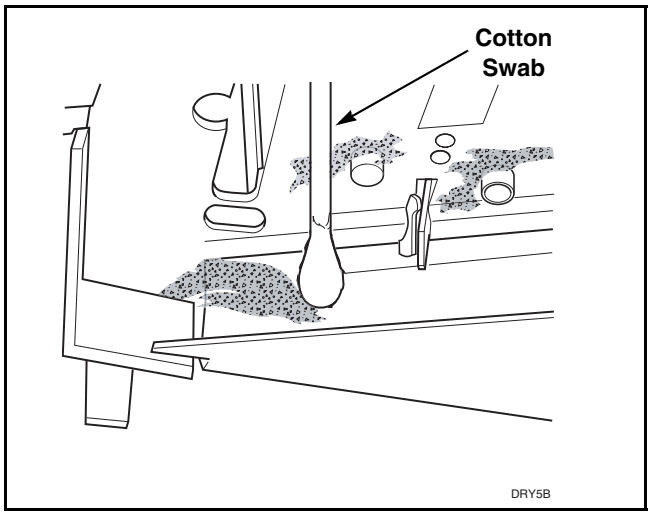

Figure 78

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WARNING

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- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

i. Check coin return pendulum to verify it swings freely. If pendulum does not swing freely, spray pendulum pivot point with Teflon based lubricant and move pendulum back and forth two to three times. An additional application of Teflon based lubricant may be necessary to ensure that pendulum swings freely. Refer to *Figure 79*.

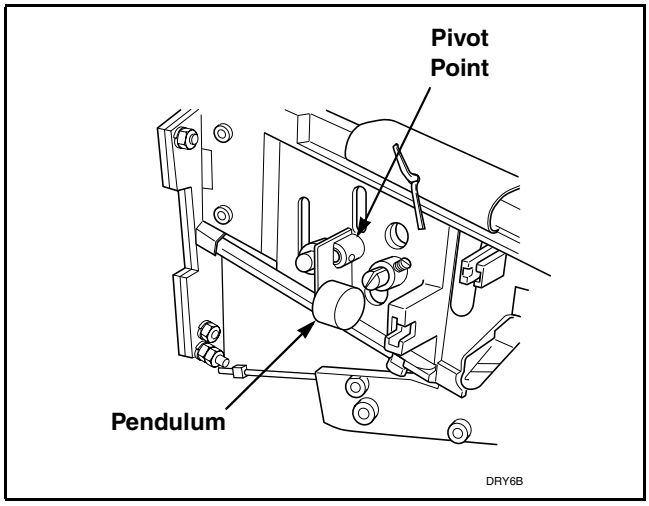

Figure 79

j. Check coin drop sensor for dust or dirt on eyes. Wipe eyes with dry cotton swab. Refer to *Figure 80.*

IMPORTANT: DO NOT use isopropyl alcohol to clean electronic sensor or eyes.

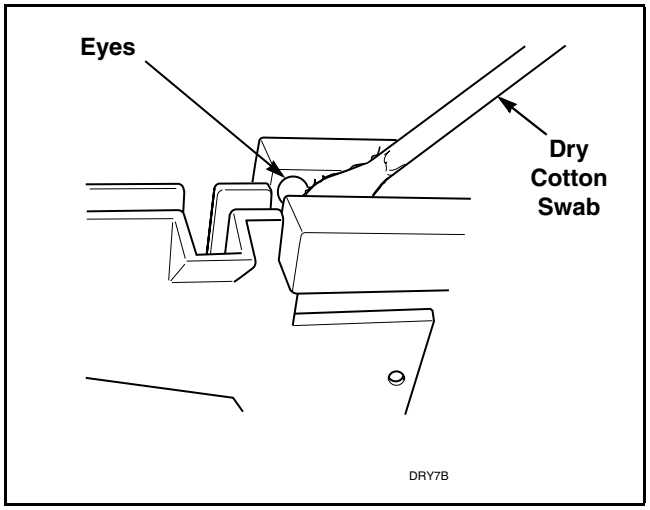

Figure 80

k. Reinstall coin return on to coin drop frame.
l. Reinstall metal clip and slide towards coin insert slot. All cotter pin holes must line up.
m. Reinstall cotter pin.
n. Place drop on level surface to verify that coins follow correct path in drop. It may be necessary to lift drop to allow coin to follow through sensor.
o. Reinstall coin drop into machine. Refer to *Paragraph 87*.
p. Reconnect electrical power to machine and drop.
q. Add a coin to drop to verify that coin drop is operating properly and that electrical connection is working properly.

NOTE: If coin drop does not operate properly after above steps have been completed, corrosion of metal or vandalized components within coin drop may be preventing the coin drop from functioning correctly. Replace coin drop.

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Notes

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Section 7
Dryer Test Procedures

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

W014R1

IMPORTANT: Electrical test procedures in this service manual are performed by using a Volt-Ohm meter. Tests can also be performed using a multi-meter or any other electrical testing equipment with which the service person is familiar.

138. DRIVE MOTOR

Refer to *Figure 81*.

a. Remove motor and exhaust assembly. Refer to *Paragraph 123*.

b. Disconnect motor wire harness at motor disconnect block.

NOTE: Refer to wiring schematic, Section 8, for internal motor switch wires.

NOTE: Drive Motor Resistance

120 Volt	**2,460 – 3,100 Ohms**
240 Volt	**10,000 - 13,000 Ohms**

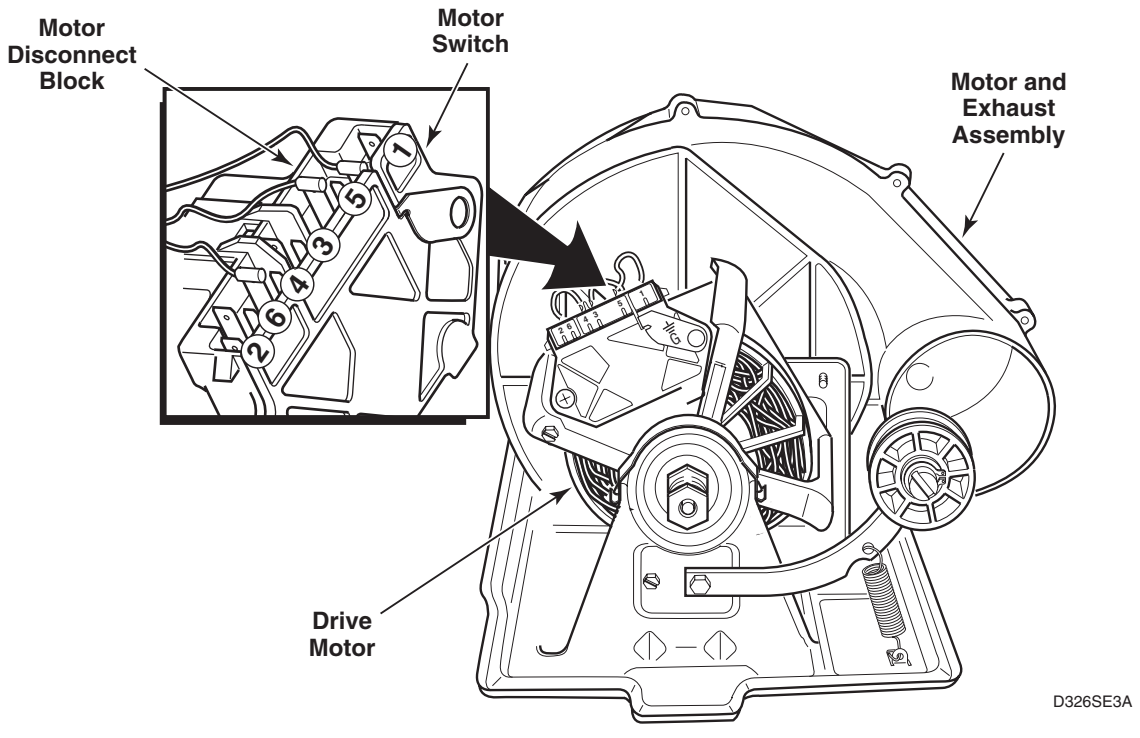

Figure 81

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

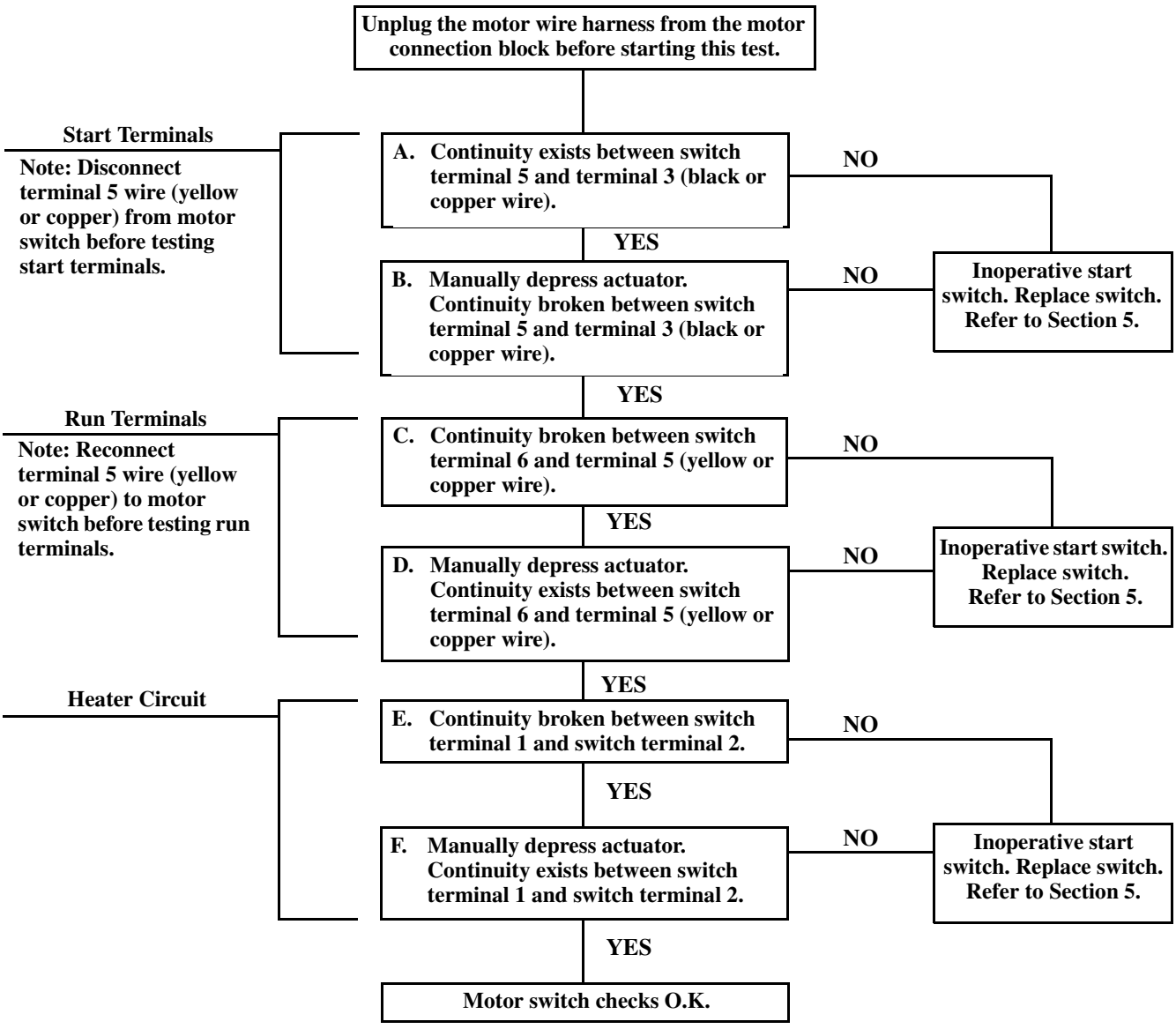
W014R1

c. **Motor Switch** (Refer to SECTION 8 for Internal Wiring of the Dryer Motor Switch.)

WARNING

Disconnect electric power to dryer before performing any of the following steps or when replacing inoperative motor switch.

W290


Unplug the motor wire harness from the motor connection block before starting this test.
Start Terminals
Note: Disconnect terminal 5 wire (yellow or copper) from motor switch before testing start terminals.
A. Continuity exists between switch terminal 5 and terminal 3 (black or copper wire).
NO
YES
B. Manually depress actuator. Continuity broken between switch terminal 5 and terminal 3 (black or copper wire).
NO
Inoperative start switch. Replace switch. Refer to Section 5.
YES
Run Terminals
Note: Reconnect terminal 5 wire (yellow or copper) to motor switch before testing run terminals.
C. Continuity broken between switch terminal 6 and terminal 5 (yellow or copper wire).
NO
YES
D. Manually depress actuator. Continuity exists between switch terminal 6 and terminal 5 (yellow or copper wire).
NO
Inoperative start switch. Replace switch. Refer to Section 5.
YES
Heater Circuit
E. Continuity broken between switch terminal 1 and switch terminal 2.
NO
YES
F. Manually depress actuator. Continuity exists between switch terminal 1 and switch terminal 2.
NO
Inoperative start switch. Replace switch. Refer to Section 5.
YES
Motor switch checks O.K.

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WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer/dryer before servicing.**
- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

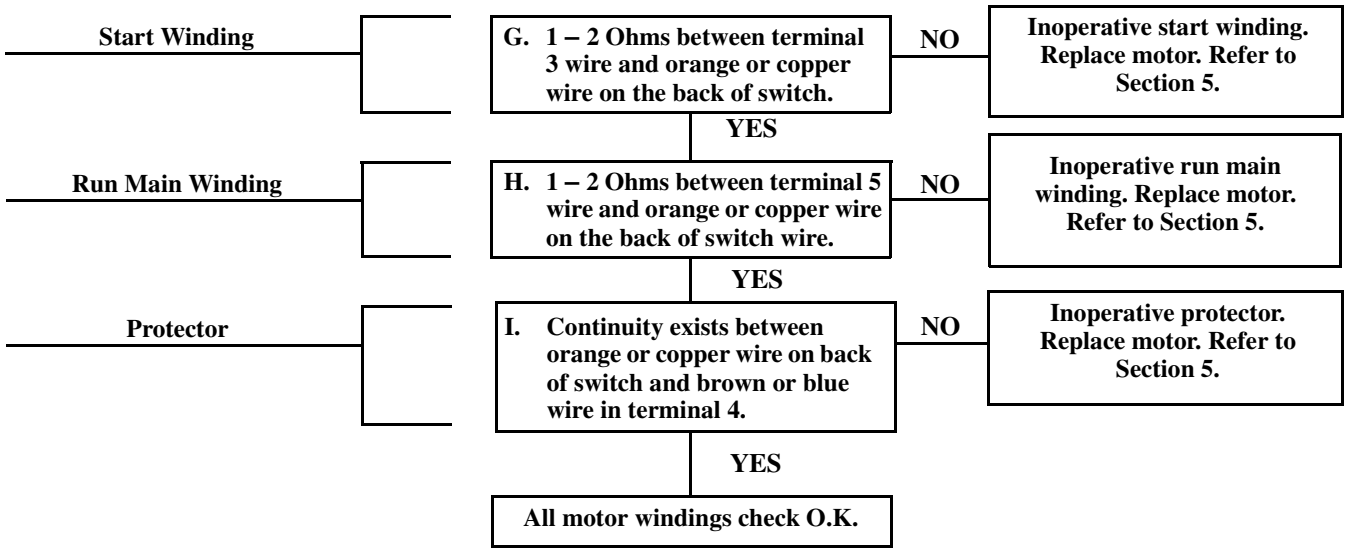
W014R1

d. **Motor Windings** (Refer to SECTION 8 for Internal Wiring of the Dryer Motor Switch.)

WARNING

Disconnect electric power to dryer before performing any of the following steps or when replacing inoperative motor switch.

W290


Start Winding
G. 1 – 2 Ohms between terminal 3 wire and orange or copper wire on the back of switch.
NO
Inoperative start winding. Replace motor. Refer to Section 5.
YES
Run Main Winding
H. 1 – 2 Ohms between terminal 5 wire and orange or copper wire on the back of switch wire.
NO
Inoperative run main winding. Replace motor. Refer to Section 5.
YES
Protector
I. Continuity exists between orange or copper wire on back of switch and brown or blue wire in terminal 4.
NO
Inoperative protector. Replace motor. Refer to Section 5.
YES
All motor windings check O.K.

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WARNING

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- **Close gas shut-off valve to gas dryer before servicing.**
- **Never start the washer/dryer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

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139. MOTOR SWITCH

a. Remove motor and exhaust fan assembly. Refer to *Paragraph 123*.

b. Remove the two motor switch attaching screws. Refer to *Figure 87*. Disconnect switch leads. Remove motor switch.

c. Remove thermal overload protector

NOTE: The thermal overload protector is unique to the motor from which it was removed and should only be used on that motor. To reduce the risk of overheating the motor, do not use any thermal overload protector other than the one taken from the inoperative motor switch in step 3.

(1) **Motor with Switch on Blower End** Using a small bladed screwdriver, press the thermal overload protector mounting tab downward and remove the thermal overload protector from the inoperative motor switch. Refer to *Figure 82*.

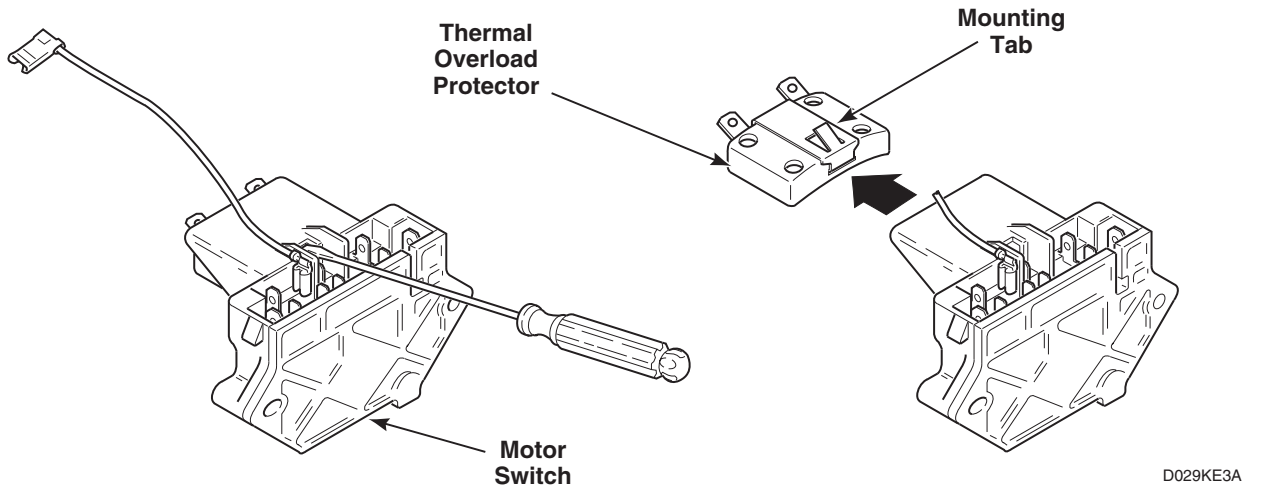

Figure 82

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WARNING

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(2) **Motor with switch on pulley end**
Press the tip of a small bladed screwdriver into the slot located between top of motor switch and plastic clip. Lift up on handle of screwdriver until both clip and thermal overload protector detach from motor switch. Refer to *Figure 83*.

d. Attach the thermal overload protector removed in Step "c" to the new motor switch.
e. Install new motor switch onto motor and reconnect motor switch leads removed in Step "b". Refer to *Figure 87*.
f. Test motor switch by following the step-by-step procedures included in Section II.
g. Before reinstalling the motor assembly, apply power (120 VAC) directly to motor terminals 4 and 5. Then start and run the motor at least 6 times, making sure the motor and switch are operating properly.

NOTE: The dryer manufacturer and parts suppliers are not liable for improper switch installation.

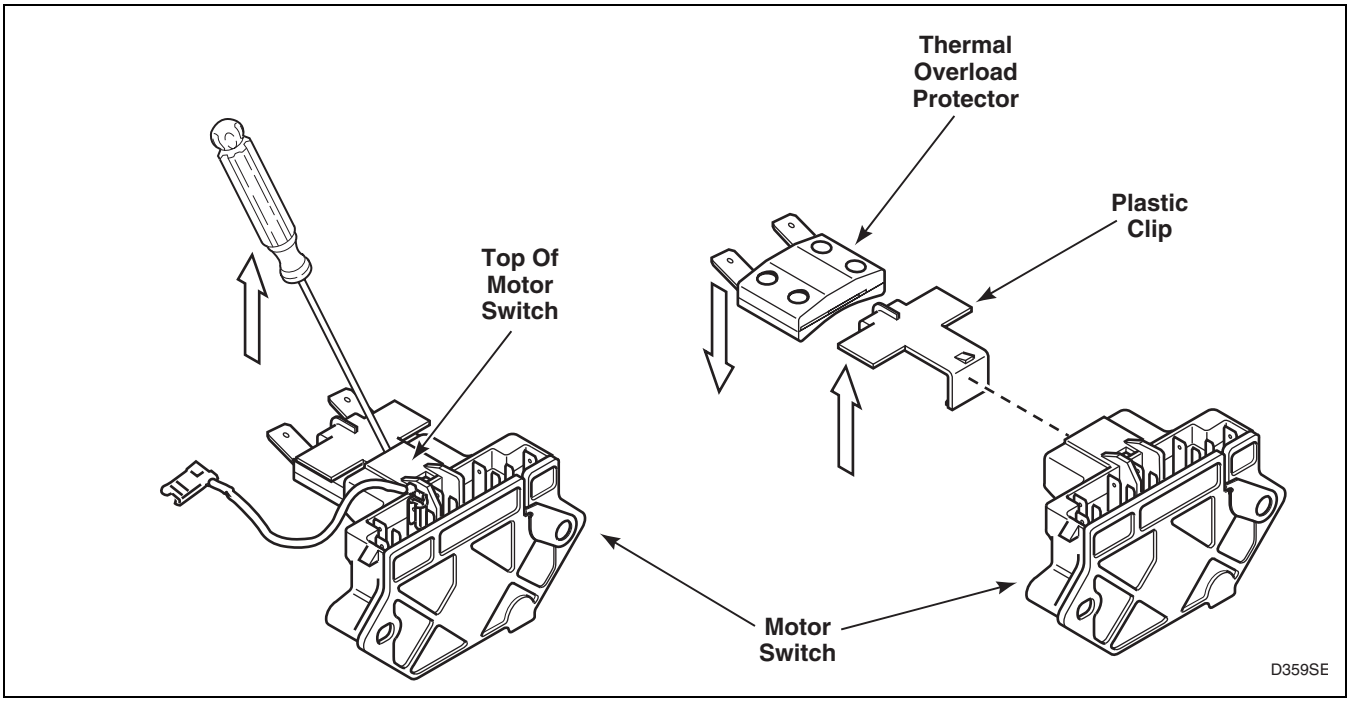

Figure 83

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WARNING

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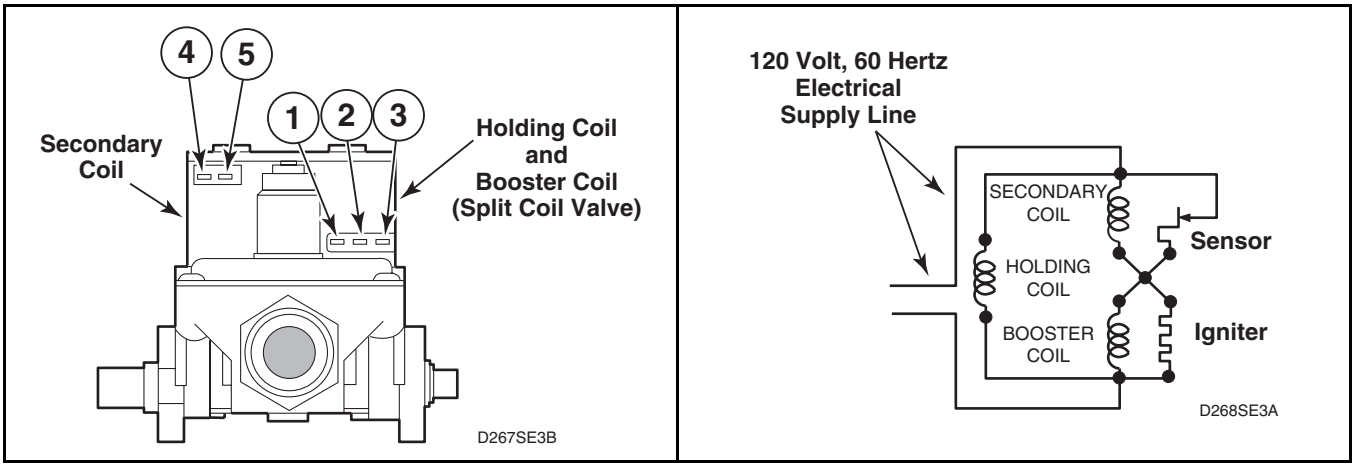

Figure 84

140. BURNER SYSTEM OPERATION (Gas Models)

Refer to *Figure 84*.

a. **Components**

This burner has four basic components: a silicon carbide (glow bar) igniter, burner tube, sensor, and a two-stage gas valve consisting of a split-coil valve and a secondary coil valve. The split-coil valve is opened when the dryer thermostat calls for heat, while the secondary valve does not open until the igniter has attained ignition temperature.

b. **Pre-Ignition Circuits**

When the dryer thermostat calls for heat, circuits are completed through the holding coil, sensor, booster coil and igniter. Both coils must be energized to open the split-coil valve. Once opened, the holding coil can hold the valve open without assistance from the booster coil. The sensor triggers the current to travel around the secondary coil and through the igniter, causing the igniter to get hot.

c. **Burner Circuit**

In approximately 30 seconds, the igniter attains ignition temperature and ignition is made. The heat from the burner flame causes the sensor contacts (located on burner housing beside the igniter) to open. A circuit is then completed through the secondary valve coil, opening the valve and allowing gas to flow.

d. **Momentary Power Interruption**

Upon resumption of power, sensor contacts will still be open, permitting secondary valve to open. However, with the secondary coil in the circuit, the booster coil cannot draw enough current to open the split-coil valve. When sensor contacts do reclose, the secondary valve will close, and the burner system will be in the normal pre-ignition circuit.

e. **Flame Failure**

In case of flame failure, the sensor contacts will re-close in about 45 seconds. This will close the secondary valve and the burner system will be in the normal pre-ignition circuit.

f. **Ignition Failure**

If flame is not established as sensor contacts open, secondary valve will remain open until sensor contacts re-close. Sensor will continue to recycle the igniter and secondary valve (about once per minute) until ignition is made or dryer is turned off.

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WARNING

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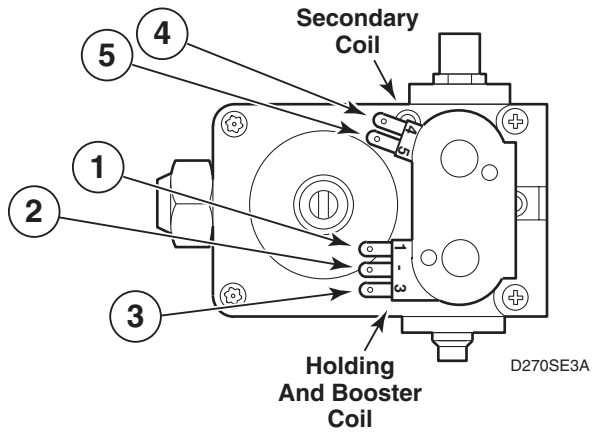
141. ELECTRICAL CIRCUIT TO IGNITION SYSTEM (Gas Models)

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Close main gas shut-off valve. Refer to *Figure 75*.
d. Remove valve wire harness disconnect block from the holding and booster coil. Refer to *Figure 85*.
e. Plug dryer power cord into wall receptacle, and start the dryer in a heat setting (refer to the Operating Instructions supplied with dryer).
f. Set test meter to read AC voltage and apply meter probes into terminals on the dryer harness plug that would correspond to terminals "1" and "2" on the coil. Refer to *Figure 84*. Meter should register line voltage in all Fabric settings, except FLUFF which should read “zero” VAC.
g. If meter does not read line voltage in step “f”, check motor switch, thermostats, fabric switch, accumulator, or timer.



GAS VALVE FOR SILICON CARBIDE IGNITION

Figure 85

WARNING

To reduce the risk of fire, explosion and electric shock, close the valve in the gas supply line to the gas dryer and disconnect the electrical power unless gas or power supplies are required to perform test procedure.

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142. GAS VALVE COILS CHECK (Gas Models)

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Close main gas shut-off valve. Refer to *Figure 75*.
d. Remove disconnect blocks from gas valve coils.
e. Set test meter to read Ohms and put meter probes to terminals shown in *Figure 85*, and in the following chart.

COIL TOLERANCE READINGS

Meter probes to terminals:	Meter should read:
Holding Coil – Terminals 1 & 2	1365 ± 25 Ohms
Booster Coil – Terminals 1 & 3	560 ± 25 Ohms
Secondary Coil – Terminals 4 & 5	1220 ± 50 Ohms

NOTE: If meter registers any other readings than those listed above, the respective coil(s) should be replaced.

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WARNING

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143. SENSOR CHECK (Gas Models)

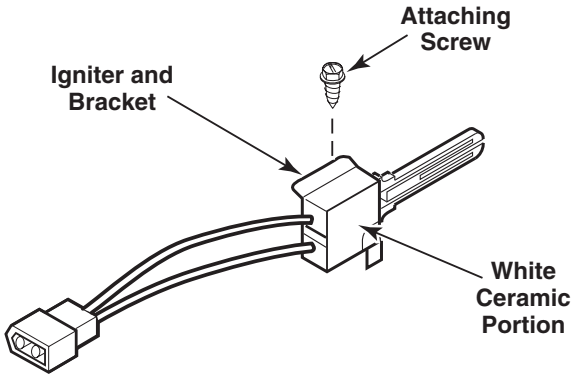
a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel.
c. Close main gas shut-off valve. Refer to *Figure 75*.
d. Remove wires from sensor terminals. Refer to *Figure 50*.
e. Set test meter to read Ohms and put meter probes on sensor terminals. Meter should read "zero" Ohms. If meter registers an Ohm reading of any amount, replace sensor.

144. IGNITER CHECK (Gas Models)

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Close main gas shut-off valve. Refer to *Figure 75*.
d. Disconnect igniter wires at disconnect block.
e. Set test meter to read Ohms and put meter probes on terminals of igniter wires.
f. **Silicon Carbide Igniter** – meter should read between 45 – 200 Ohms. Refer to *Figure 86*.

NOTE: If meter does not read appropriate Ohms, then replace the igniter.

IMPORTANT: Always examine all wires, terminals and connectors to be sure wiring is correct before replacing any components.



SILICON CARBIDE IGNITER AND BRACKET ASSEMBLY

D337SE3A

Figure 86

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WARNING

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- **Close gas shut-off valve to gas dryer before servicing.**
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- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer/dryer is properly grounded.**

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145. THERMAL FUSE (Electric Models)

a. While supporting the access panel, remove two screws from bottom edge of front access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage panel locators from bottom edge of front panel. Refer to *Figure 48*.
c. Label and disconnect wires from thermal fuse. Refer to *Figure 52*.

NOTE: Refer to wiring diagram when rewiring thermal fuse.

d. Set multimeter to read Ohms. Apply meter probes to thermal fuse terminals. Multimeter should read 0 Ohms. If the meter does not show any reading (infinite Ohms), then the fuse is open. If the fuse is open, then replace BOTH the thermal fuse and the limit thermostat.

146. HEATER ASSEMBLY (Electric Models)

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage panel locators from bottom edge of front panel. Refer to *Figure 48*.
c. Disconnect wires from heater assembly. Refer to *Figure 52*.

NOTE: Refer to wiring diagram when rewiring heater assembly.

d. Set meter to read Ohms. Apply meter probes to the heater assembly terminals. Meter should read as follows: (Cold Ohms). Refer to *Figure 52*.

Element Color Code	KW	Voltage/Hz.	Resistance Reading
Red	5	240 V 60 Hz.	10.39 ± .31 Ohms Cold
White	4.75	208 V 60 Hz.	8.2 ± .5 Ohms Cold
Green	4.8	240 V 50 Hz.	10.75 ± .32 Ohms Cold
Yellow	4	240 V 50 Hz.	13.03 ± .39 Ohms Cold
Blue	3.1	240 V 50 Hz.	16.7 ± .5 Ohms Cold
Orange	5.35	240 V 60 Hz.	9.72 ± .3 Ohms Cold
Purple	4.25	208 V 60 Hz.	9.27 ± .3 Ohms Cold

147. CYCLING OR LIMIT THERMOSTAT

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage panel locators from bottom edge of front panel. Refer to *Figure 48*.
c. Label and disconnect wires from thermostat. Refer to *Figure 53*.

NOTE: Refer to wiring diagram when rewiring thermostat.

Cycling Thermostat (S.P.S.T. – 2 Terminals) or Limit Thermostat

a. Set meter to read Ohms.
   (1) Apply meter probes to the thermostat terminals.
   (2) Meter should read “zero.”

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148. DOOR SWITCH

a. While supporting the access panel, remove two screws from bottom edge of access panel. Refer to *Figure 40*.
b. Gently lower the access panel to disengage locators from bottom edge of front panel. Refer to *Figure 48*.
c. Remove two screws holding bottom tabs on front panel to dryer side panels. Refer to *Figure 41*. Swing bottom of front panel away from dryer far enough to disengage hold-down clips and locators from cabinet top.
d. Disconnect wires from door switch. Refer to *Figure 47*.

NOTE: Refer to model wiring diagram when rewiring door switch.

e. Set meter to read Ohms and apply meter probes on switch terminals 1 and 3 with door closed. You should get “zero” reading.
f. Apply probes to terminals 1 and 2 with door closed. The meter should read “infinite”.
g. Open door. Meter should read “infinite” between 1 and 3 and “zero” between 1 and 2.

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Section 8
Internal Wiring of Dryer Motor Switch

WARNING

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W014R1

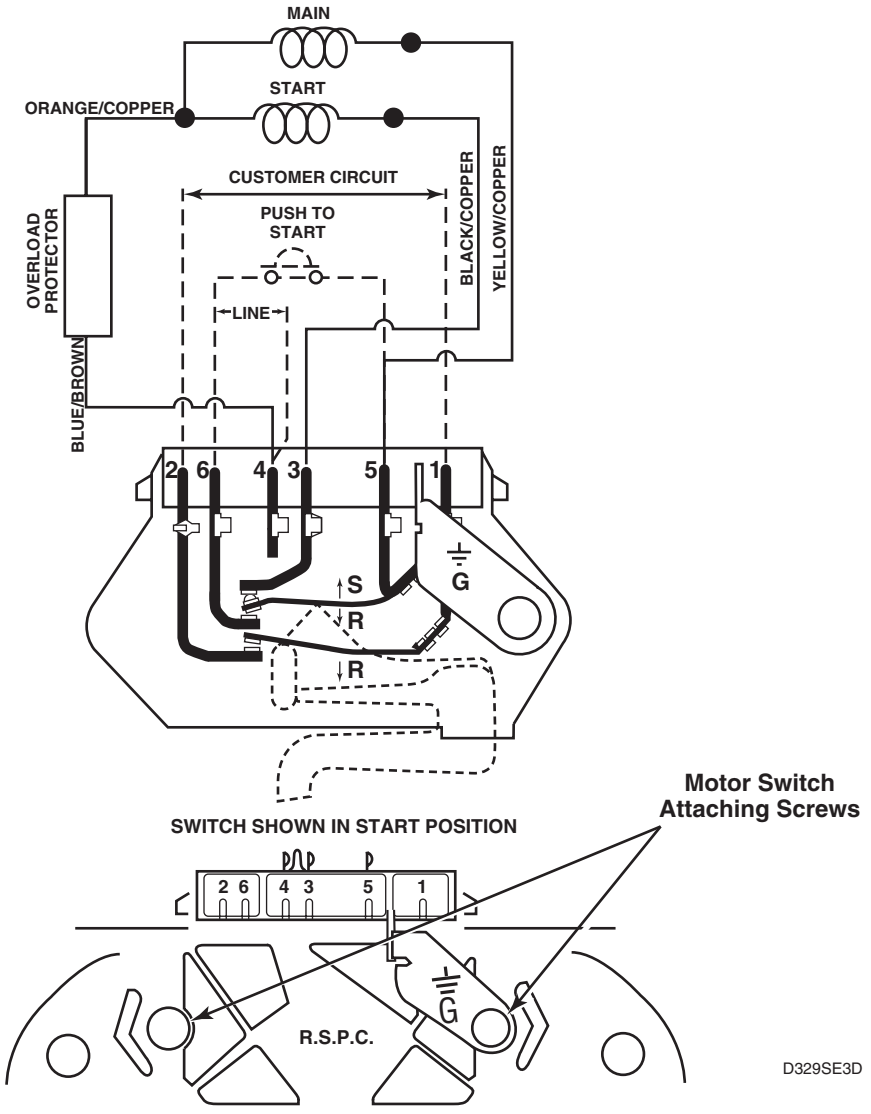

Figure 87

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Notes

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